TEXTILE BULLETIN

Vol. 57 September 15, 1939 No. 2

HOW TO GET MAXIMUM LIFE FROM LEATHER ROLL COVERING

GIVE LEATHER SOME OF THE CONSIDERATION GIVEN TO SUBSTITUTES

In order to get anything approaching satisfactory service from leather substitutes and in order to keep waste within something less than an outrageous figure, mills using such substitutes must maintain constant vigilance over their top rolls, among other things adopting a regular "buffing schedule."

And yet these same mill men and many of their colleagues have repeatedly maintained that it's too much trouble to give even a fraction of this attention to their **leather** roll covering, in spite of the fact that experience has proved that such attention will often DOUBLE the life of leather.

In England, Continental Europe and even in the Far East, it is the usual everyday practice to take leather rollers out of the spinning frame, "varnish" and recalender them. As a result, the average top roll replacement is much less than in the United States.

Carry this idea still further and adopt a dressing and recalendering schedule for leather in place of the buffing schedule for substitutes; that is, take out a whole frame of leather rollers that have been put in as one group, give them a good coating of top roll dressing and run them on a hot calender. Repeat this every few months and you will be surprised at how much better they spin and how much longer they last.

This company has developed a scientifically prepared dressing for top leather rollers which it will be glad to supply to regular customers, free of charge.

SHEEP and CALF SKIN

GILL LEATHER *for* TOP ROLLS

SALEM, MASS.

Southern Representatives

Gastonia, N. C.: W. G. Hamner
Greenville, S. C.: W. J. Moore
Greenville, S. C.: Ralph Gossett
Griffin, Ga.: Belton C. Plowden

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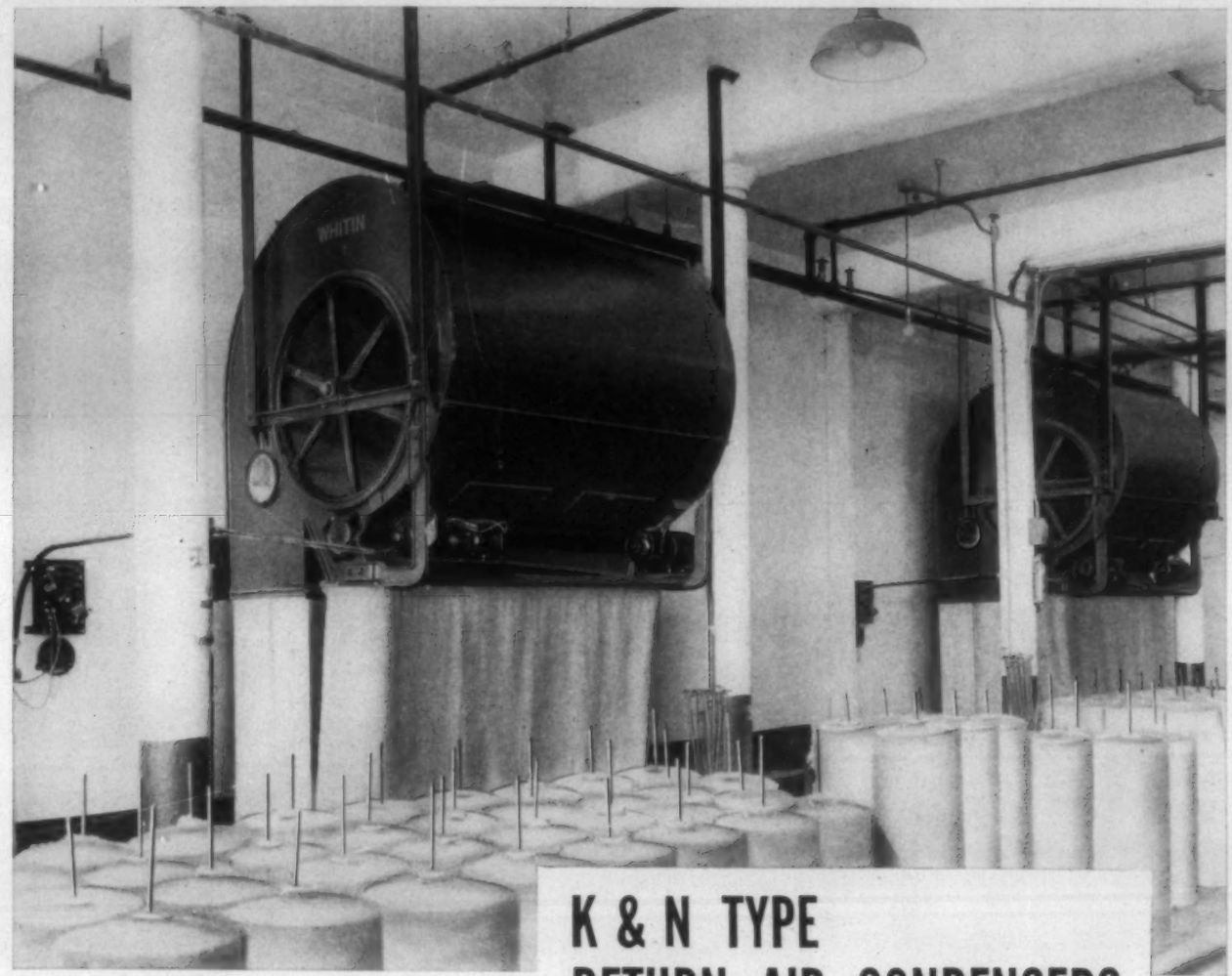


K & N TYPE RETURN AIR CONDENSERS

Report from our Service Call:

in a Southern mill, connected to four 3-Beater Pickers. This unit replaced a large battery of air cleaners which failed to function to the satisfaction of the mill.

"Today the atmosphere is clean and clear. Dust drawn from the Pickers is deposited by the Condensers in the bag below. They operate these Condensers for about one hundred hours before removing the deposit in the bags. The picker laps look better, the management is delighted, and the operatives are happy."

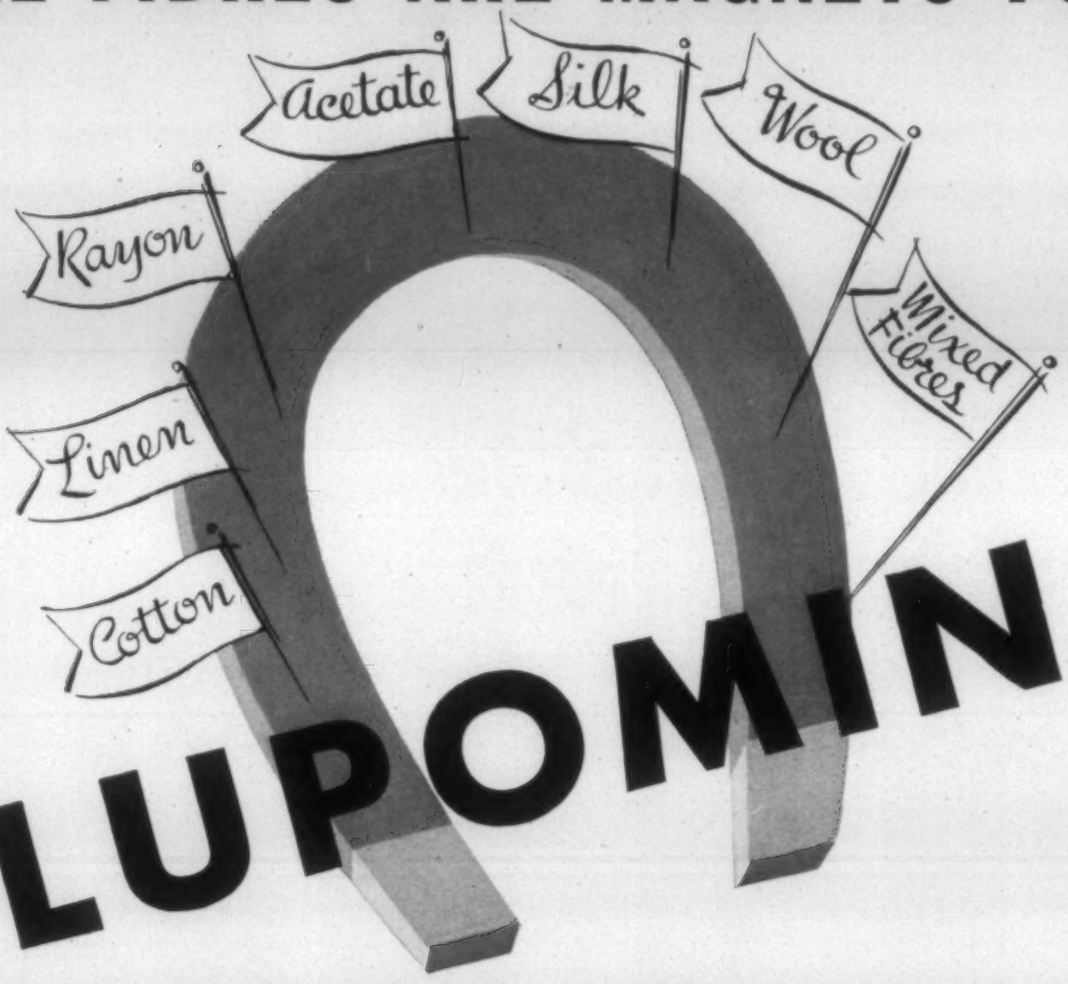
CLEANER • MORE EFFICIENT • REQUIRE LESS ATTENTION

WHITIN MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS, U. S. A.

CHARLOTTE, N. C. ATLANTA, GA.

ALL FIBRES ARE MAGNETS FOR



For a smooth, supple hand—odorless finish—bright print colors—use Lupomin

Lupomin is a cation-active material substantive to the fibres and therefore a dilute bath is exhausted in a short time. A small quantity of Lupomin gives a supple and smooth hand to cotton, linen, rayon, acetate, silk, wool, and mixed fibres.

The small quantities necessary make Lupomin an economical softening agent—excellent results are obtainable at low cost.

Silk, cotton, and rayon hosiery may be after-treated with Lupomin for a full and firm hand.

Lupomin, used on print goods after washing, acts as a softener and improves the fastness of ground colors and printed shades to bleeding, crocking, and wet-pressing.

Write today for free samples.

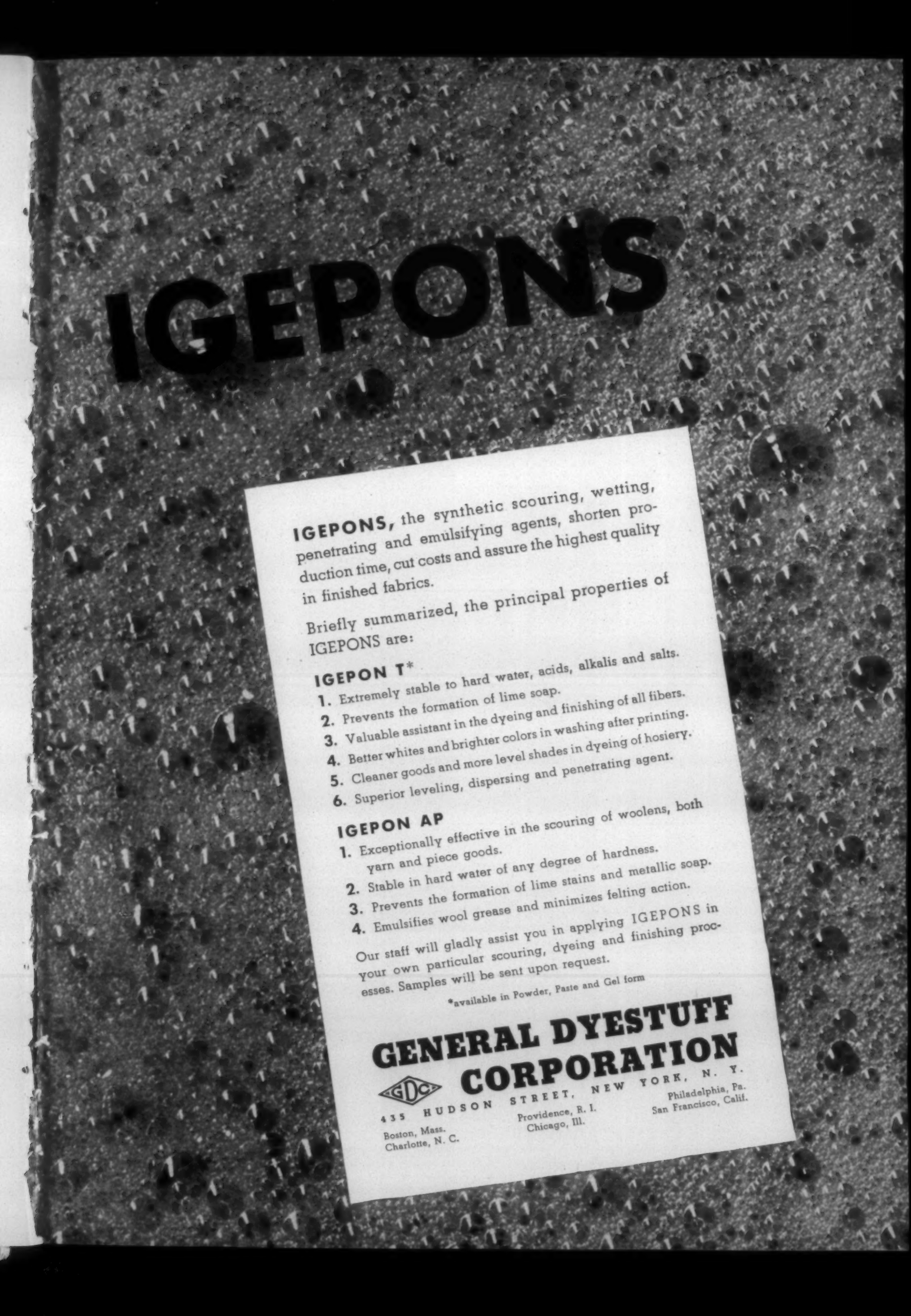
USE LUPOMIN TO INSURE:

- Smooth, supple hand
- Lubricated yarn
- Drapy fabrics
- Odorless finish
- Strong yarn
- Bright shades
- Bright print colors
- Fast-colored discharges
- No bronzing of sulphur colors
- No bleeding
- No crocking
- No mark-off on wet-pressing

JACQUES WOLF & CO.

Chemicals PASSAIC, N. J.

WAREHOUSES: Providence, R. I., Philadelphia, Pa., Utica, N. Y., Chicago, Ill., Greenville, S. C., Chattanooga, Tenn.
Midwestern Distributor: Bradley F. Marthens, Milwaukee, Wisc.



IGEPONS, the synthetic scouring, wetting, penetrating and emulsifying agents, shorten production time, cut costs and assure the highest quality in finished fabrics.

Briefly summarized, the principal properties of IGEPONS are:

IGEPON T*

1. Extremely stable to hard water, acids, alkalis and salts.
2. Prevents the formation of lime soap.
3. Valuable assistant in the dyeing and finishing of all fibers.
4. Better whites and brighter colors in washing after printing.
5. Cleaner goods and more level shades in dyeing of hosiery.
6. Superior leveling, dispersing and penetrating agent.

IGEPON AP

1. Exceptionally effective in the scouring of woolens, both yarn and piece goods.
2. Stable in hard water of any degree of hardness.
3. Prevents the formation of lime stains and metallic soap.
4. Emulsifies wool grease and minimizes felting action.

Our staff will gladly assist you in applying IGEPONS in your own particular scouring, dyeing and finishing processes. Samples will be sent upon request.

*available in Powder, Paste and Gel form

GENERAL DYESTUFF CORPORATION

GDC

435 HUDSON STREET, NEW YORK, N. Y.

Boston, Mass.
Charlotte, N. C.
Providence, R. I.
Chicago, Ill.
Philadelphia, Pa.
San Francisco, Calif.

TUFFERIZED

PATENT APPLIED FOR

Napper Clothing

doesn't pull the fibres out by the roots!

The new Tufferizing process of cutting and setting the wire in Napper Clothing eliminates wire burrs that have injured the fabric structure of blankets. Tufferized Napper Clothing has clean, smooth needle points to comb up a deep, fluffy nap. Each wire is held firmly yet flexibly in the foundation to give a uniform and perfect nap.

Tufferized Napper Clothing raises the long fibres into a velvety nap because new Tufferized Precision Parts—cut wires clean and smooth without a burr; eliminate grinding to remove wire burrs; shape each wire with a square crown to allow flat seating into the foundation; make all wires even in length, parallel and evenly spaced.

Write for sample and more complete information impossible to give in this limited space, or invite our Representative to show you a four-minute visual story of Tufferizing.

HOWARD BROS. MFG. CO.

HOME OFFICE AND FACTORY: **WORCESTER, MASS.**

Southern Plants: Atlanta, Ga., Gastonia, N. C. **Branch Offices:** Philadelphia, Dallas

TUFFERIZED NAPPER CLOTHING

Products: Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards—Napper Clothing, Brush Clothing, Strickles, Emery Fillets, Top Flats Recovered and extra sets loaned at all plants—Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant — Midgley Patented, and Howard's Special Hand Stripping Cards — Inserted-Eye and Regular Wire Heddles.

BARRELED

These Vials tell the Rice Process Story

VIAL "A" contains refined linseed oil as commonly used in white oil paints. Mixed with white pigments, the oil *seems* to lose its color. BUT *the yellow is still there!* Sooner or later it will show up on your painted walls and ceilings.

VIAL "B" shows how this oil appears after treatment with our secret Rice Process. It is almost pure white in color. *The yellow is removed!* This exclusive process is the reason why we can blend synthetic vehicles with our processed oils and give you in the new Barreled Sunlight a paint that (1) is whiter to start, (2) stays white longer, (3) dries quicker, (4) spreads and hides better, (5) flows more easily.

A

B

SUNLIGHT DOES IT AGAIN!

ecret Rice Process now makes Barreled Sunlight WHITER THAN VER... keeps it white FAR LONGER... makes it for large-area ork the MOST PRACTICAL QUICK DRYING PAINT AVAILABLE TODAY

AGAIN Barreled Sunlight scoops the paint industry! Six years ago, it was the improved Barreled Sunlight . . . today it's an amazing new quick drying form of Barreled Sunlight that is even whiter to start . . . holds its whiteness far longer.

And never before has there been a paint so white, that holds its whiteness so long *and* spreads and hides so well. These outstanding improvements are made possible by our own secret Rice Process which no chemist can copy because it *defies chemical analysis.*

Only because of this exclusive process —for 25 years the secret of Barreled Sunlight's leadership—can the newer synthetic types of vehicles be combined with good old linseed oil to produce this unusual paint. It gives new ease of flow that painters like . . . that helps speed up work. It adds the important feature of *quick drying.* And with all these advantages, the unmatched Rice Process makes Barreled Sunlight the most practical paint available today for large-area work.

Test Barreled Sunlight against the best paint you've ever used . . . and you'll be sold on it for good. It saves time, paint and labor at the start . . . its longer-lasting whiteness keeps your maintenance budget low. For full details on Barreled Sunlight for industrial use, let us send you a free copy of "More Light with Lasting Cleanliness." Address U. S. Gutta Percha Paint Company, 5-I Dudley St., Providence, R. I.

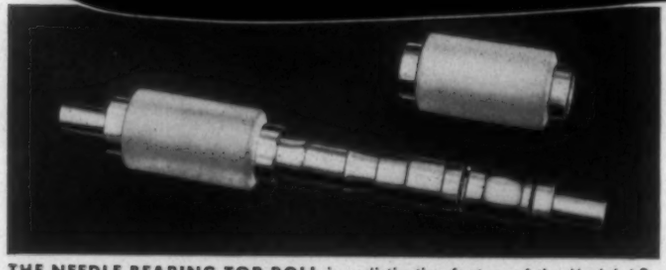
BARRELED SUNLIGHT

(WHEN ORDERING, PLEASE SPECIFY "QUICK DRYING FORM")

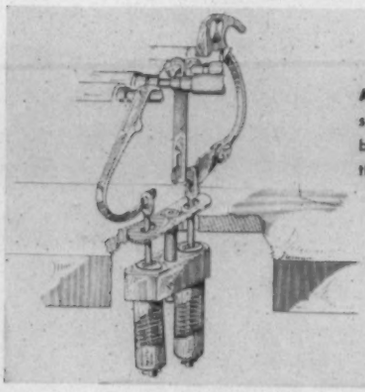
TOP VIEW of the Model J-3 Controlled Draft Roving Assembly. Note how the Forming Trumpet gathers the wide ribbon of fibres, and transforms it into a uniform compact tubular shape just before it reaches the final drafting zone.

Streamlined Improvements the new Model J-3

CONTROLLED DRAFT ROVING ASSEMBLY



THE NEEDLE BEARING TOP ROLL is a distinctive feature of the Model J-3. The bearings are enclosed in dust and lint proof casings, and are lubricated at long intervals with a rust-inhibiting grease. With this top roll, there is a smooth, uniform motion and effective fibre control even with heavy grists of cotton.



THE SPRING PRESSURE ASSEMBLY, showing the pressure springs in their casing, the beams, levers and stirrups of the pressure distributing system.

THIS NEW SACO-LOWELL Controlled Draft Roving Assembly was designed to accomplish three important objectives:

1 **IMPROVING** the fibre control function of the Forming Trumpet.

2 **DEVISING** a source of roll pressure which would be efficiently uniform in action, entirely trouble-proof in maintenance, and quickly adaptable to changes in operating conditions.

3 **ARRANGING** the entire drafting assembly in order to reduce the necessity of frequent cleaning and to facilitate this work when it becomes necessary.

THE RESULT:—Even-Roving, economically produced through efficient fibre control—spic-an'-span cleanliness and thorough lubrication.

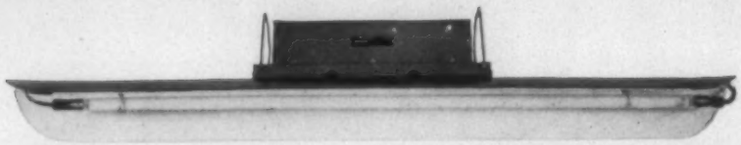
BETTER ROVING AT A SAVING should interest every mill. Our engineers will show you how easily this can be accomplished with the Model J-3 frame.

SACO-LOWELL SHOPS

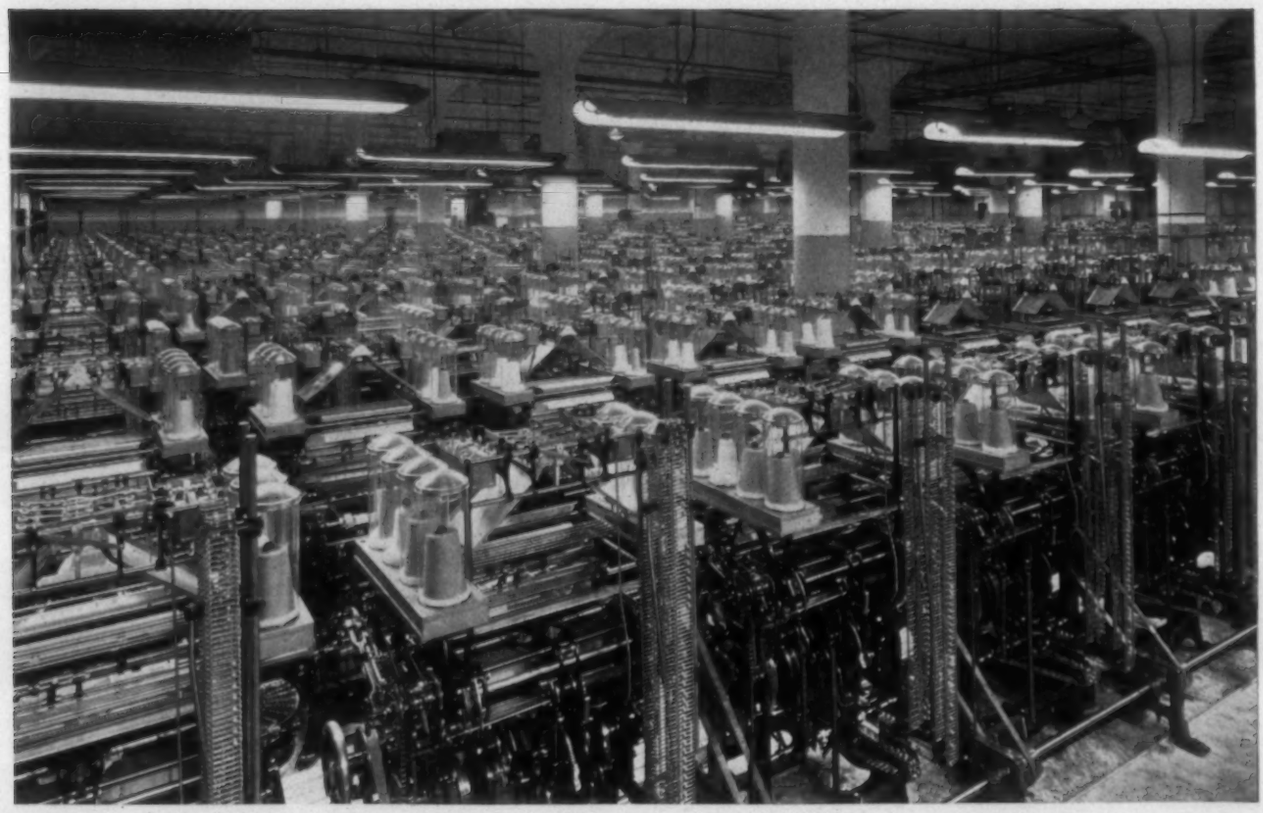
60 Batterymarch Street, Boston, Mass.

Charlotte, N. C. Atlanta, Ga. Greenville, S. C.

PUT SHADOWS TO WORK



with Cooper Hewitt Fluorescent Lamps·



You can actually harness shadows and make them work for you with an "engineered" installation of Cooper Hewitt Fluorescent lamps. Directional control of shadows, made possible by the long-tube mercury lamps, provides the proper contrast along each thread for easy seeing. Shadow fighting, breeding an unnecessary nervous tension, is thus eliminated. The result—no eye fatigue, less rejects, more profitable production.

With the high illumination levels required in the textile mill for good seeing, the need for shadow control is more important than ever. That's why "controlled lighting" supplied by Cooper Hewitt Fluorescent lamps is preferred in textile plants. Cooper Hewitt lighting is "better than daylight", too, because it is never obscured at the moment you need it most. Control of shadows will save you money by supplying another control over production. Write now to the General Electric Vapor Lamp Company, 895 Adams Street, Hoboken, New Jersey.

GENERAL ELECTRIC VAPOR LAMP COMPANY

965F

6 FEATURES THAT MAKE THIS MACHINE IDEAL FOR WINDING DYEING PACKAGES

1. FLEXIBILITY. 9 different angles of wind from 9° to 15° simply by changing 4 small gears in head end of machine.
2. RIBBON WIND ELIMINATED by ingenious ribbon breaker.
3. TWICE THE PRODUCTION WITH 1/3 LESS LABOR as completed with older models.
4. UNIFORM PACKAGE DENSITY due to positive tension and pressure controls and to uniform yarn speed.
5. EASE OF OPERATION, due to self threading tension and other features.
6. LOW COST OF UPKEEP due to rugged construction, ball bearings, etc.

Foster Machine Co.
Westfield, Mass.
Sou. Off., Johnston Bldg.
Charlotte, N. C.

Model 102 machines winding dyeing packages.

★ Write for Bulletin A-91 which gives complete details.

FOSTER MODEL 102

FOR WINDING COTTON, MERCERIZED, WOOLEN, WORSTED, MERINO, SPUN SILK AND SPUN RAYON YARNS

SCIENCE *and* INDUSTRY

THE importance of chemistry in the textile processing and chemical industries is becoming increasingly apparent and the approach to manufacturing and technical problems is now undertaken on a more scientific basis than ever before. Today, there is a closer relationship and understanding between these highly specialized industries than has hitherto existed.

We are standing upon the threshold of an era of new chemical fibers and finishes. Chemical science has developed many new types of synthetic fibers—fibers made from coal, air and water; from wood; from milk. Some of these fibers have been skillfully combined to form novel and attractive fabrics that have been accepted by the public at large. The tremendous growth in the use of these fabrics is reflected in the endless variety of multi-fiber weaves of novel construction being marketed throughout the entire country.

This is true of other branches of the textile industry as well. The government has developed new constructions of woolen and cotton uniform cloths of improved appearance and utility. Higher standards of quality and color permanence are being sought by the automotive fabric field as well.

Thus, it may be seen that the problems of the dyer and finisher are not solely their own. The creation of new fibers and fabrics has imposed a considerable burden upon the manufacturer of dyes as well as the dyer. The chemical manufacturer is working shoulder to shoulder with the textile industry and constantly striving to provide new and better products that will aid in the production of finer fabrics.

Variations in fibers and dyeing conditions have always presented many uncertainties. Color application is a science and due to the many factors affecting the success of the procedure, chemical and technical knowledge are indispensable. There is also an increasing demand upon the dyestuff manufacturer for dyestuffs capable of withstanding new treatments in the processing of fabrics, thereby allowing cloths of original design, finish and improved quality to be manufactured.

Through painstaking and extensive research the chemical manufacturer has improved and simplified dyeing and processing techniques. As a result, the processor has a wealth of technical information at his command, which has contributed, in no small measure, to his success.

The Du Pont Company, through its activities in the various fields directly connected with the development, processing and fabrication of textiles, is bound to figure prominently in the future production of finer fabrics. Technicians in the many Du Pont laboratories are studying the problems facing the dyer and finisher from both scientific and practical viewpoints. Their specialized technical training and practical experience enable them to cope with the many complexities surrounding the application of color to all types of fibers and to select dyes which will best meet specific requirements. Their work truly symbolizes the Du Pont tenet: *Better things for better living . . . through chemistry.*

DU PONT DYESTUFFS
REG. U.S. PAT. OFF.

E. I. du PONT de NEMOURS & CO. (Inc.)
Organic Chemicals Department, Dyestuffs Division
Wilmington, Delaware

BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

Chief: What do you mean by "savings"? That's a pretty broad word.

Super: Well, as soon as we change over to Armstrong's Cork Cots we'll begin to get better running work, with fewer top roll laps and less end breakage. Furthermore, these new cots will turn out a more uniform product, and they'll do away with eyebrows almost entirely. We'll get less clearer waste, too.

Chief: Yes, but what about the cots themselves? How do we save on them?

Super: I was just coming to that. They won't cost us any more in the first place than the coverings we're using now. Then the savings will begin. First, the assembly is quicker and cheaper with cork cots. They'll last longer, because of the toughness of cork, plus the fact that we can renew each roll three or four times by rebuffing it.

Chief: All right, but what about this business of rebuffing—isn't that going to cost money?

Super: Only about half a cent a roll, Chief. Armstrong showed me figures from other mills that prove we can actually cut our roll covering costs by more than 50%.

Chief: O.K. Those figures look good to me, too. Let's start making a complete change-over to cork cots right away.

LET an Armstrong representative show you how *your* mill can improve yarn quality and cut production costs by a change-over to Armstrong's Seamless Cork Cots, the modern roll covering. He'll give you actual production figures of mills spinning your range of numbers on cork. Or write to Armstrong Cork Company, Industrial Division, Textile Products Section, 921 Arch Street, Lancaster, Pennsylvania.

ARMSTRONG'S *Extra Cushion* SEAMLESS CORK COTS

CORK PRODUCTS SINCE 1860

TEXTILE BULLETIN

Vol. 57 September 1, 1939 No. 1

S. T. A. Divisional Meetings are "Vocational Schools" for Executives

By B. Ellis Royal, Secretary-Treasurer

Southern Textile Association

"SCHOOL" begins again this month for a large number of the operating executives of the South's textile industry, as the fall meetings of the Southern Textile Association get under way. In all, eight meetings, or classes, have been scheduled during September, October and November, for discussion and instruction on all phases of textile manufacturing with the exception of knitting and dyeing.

Managers, superintendents, overseers and second hands who have attended the divisional meetings in the past are familiar with the procedure and the value of these open forums, but for the benefit of those who have not before attended, and particularly for the benefit of those who may have the idea that they are merely get-togethers for fun and frolic, an explanation of the purpose of the Southern Textile Association in conducting these discussions may be in order.

Objects of the Association

First, the Southern Textile Association is not a policy forming organization. It makes no recommendations to its members, and it confines itself entirely to educational programs. Labor policy, unions, wages, job assignments, costs, etc., are never discussed at the meetings. The objects of the Association, as set forth in the Constitution and By-Laws, are as follows: **The objects of this organization are the promotion of good fellowship and acquaintance among its members; the conduction of practical mill discussions between the mill men, thereby giving an interchange of ideas and experience among its membership on subjects relating to textile mill operation; and the promotion of such movements as tend to the benefit and advantage of the textile industry; however, labor and wages shall not be discussed.**

When the Association was first organized, in 1908, only two meetings were held each year, and all of the business was conducted at these meetings. However, later it was decided that the industry could best be served by making the meetings more frequent so that each locality could be served without the members having to travel excessive distances to attend. As a result of this decision, the present set-up includes an annual meeting, at which time the general business of the Association is conducted, and two meetings a year for each of the eight divisions, which are devoted to an educational program. By arranging the divisions by geographical areas, it is now possible for an overseer or superintendent to leave home, attend the meeting, and get back home the same day, with a minimum of expense.

At the present time the divisions are as follows: Northern North Carolina-Virginia, Eastern Carolina, Piedmont, Gaston County, Northern Master Mechanics, Southern Master Mechanics, South Carolina (including carding and spinning section, and weaving and slashing section), and Tennessee. Each division has a chairman, vice chairman, and executive committee of from four to eight men.

A Typical Divisional Meeting

Several weeks ahead of the meeting date the chairman of the division calls his executive committee together for a discussion of the program of the meeting. At this preliminary gathering the members of the committee decide on the meeting place, general questions for discussion, speaker if any, etc. Following this, an announcement of the meeting and program is mailed to all of the operating executives in the area covered by the division, inviting them to attend, whether or not they are members of the Association.

At the meeting, the chairman presides, and in some cases conducts the discussion. In other cases, the chairman designates some other mill man to lead the discussion, and if more than one department of the mill is discussed there may be more than one leader of discussion, as, for example, one leader for carding and spinning dis-

cussion, and another for weaving and slashing.

It should be noted here that these discussions are not for the purpose of getting the men to disclose trade secrets, if there really are any, but are for the exchange of ideas, opinions and experiences, for the benefit of the industry as a whole. The men are not considered as representatives of mills, but as individuals who are interested in learning things that will make them better able to run their jobs. It is doubtful if any man can attend one of these meetings without getting an idea or a thought that will prove of value to him and his organization.

At times the divisional meetings are not devoted to discussion, but rather to educational subjects similar to a school classroom. As an example, the meeting of the Southern Master Mechanics Division last fall was devoted to demonstrations of fluorescent lighting and welding, with authorities on both subjects conducting the demonstrations and answering questions of the master mechanics.

At the meeting of the Gaston County Division, on the evening of September 22nd, W. M. McLaurine, secretary of the American Cotton Manufacturers Association, will speak on personnel relations, and will be followed by the showing of a moving picture on lubrication. Both of these subjects should be of intense interest to all operating executives of textile mills.

These meetings are sober, serious affairs, and are of concern only to those men who are interested in learning everything that they can about their industry and their job, and who want to meet and discuss subjects of common interest with other men in their line of work.

Serving in an official capacity in the Southern Textile Association, either at present or in the past, are, or have been, men from the following mills: Erwin Cotton Mills Co., Riverside and Dan River Cotton Mills, Cone Mills, Chadwick-Hoskins Co., Pacific Mills, Rosemary Mfg. Co., Union Bleachery, Consolidated Textile Corp., Victor-Monaghan Co., Hannah Pickett Mills, Entwistle Mfg. Co., Brookside Mills, Marshall Field & Co., Woodside Cotton Mills, Monarch Mills, Gaffney Mfg. Co., Drayton Mills, Orr Cotton Mills, Kendall Mills, Textiles, Inc., Mooresville Cotton Mills, Springs Cotton Mills, Dunean Mills, Pacolet Mfg. Co. These mills alone represent more than three and a quarter million spindles and eighty thousand looms, and are cited here merely to show that the larger and more successful organizations realize the effectiveness of the Southern Textile Association.

The following is quoted from an editorial in TEXTILE BULLETIN of December 2, 1937, which gives the latest compilation of figures on the attendance at the divisional meetings:

Progressive Mills and Men

Approximately 1,000 mill men have attended the divisional meetings of the Southern Textile Association this fall. These men were from 150 of the more progressive mills, and represented 5,854,000 spindles and 135,722 looms.

At first glance the above figures might not appear so impressive, since there are about 19 and a third million spindles in the South, and 376 thousand looms. But the meetings this fall were confined to North Carolina, South Carolina, Virginia, and Tennessee, and the total spindles for these States are 13,434,742, and the total looms 267,235. Thus at these meetings approximately half the spindles and half the looms have been represented.

The average number of spinles for all mills that spin in these States is approximately 25,440—the average number of sspindles of the mills represented at the Southern Textile Association meetings is approximately 39,000. This should be fairly conclusive proof that the more progressive mills and the men who are operating these mills recognize the importance of these meetings, and realize the fact that the textile industry is moving forward too rapidly for the experience of one man or one mill to keep abreast of the progress.

The discussion at these divisional meetings is aimed to benefit the operating executives, and any manager, superintendent, overseer, or second hand that attends regularly will find that he goes home from the meeting better equipped to run his job. The men who attend these meetings are progressives, their eyes open to opportunity, they want to learn, and it can be noticed that their mills run better and their troubles are sooner ironed out.

Meetings Scheduled This Fall

Dates for all of the meetings of the various divisions of the Association have been scheduled for this fall, but in a number of instances it has not been decided yet just where the meetings will be held. As stated earlier in this article, the place of the meeting is decided upon by the various executive committees.

SEPTEMBER 22

Gaston County Division, A. M. Smyre Community House, Gastonia, 7:30 P. M. Marshall Dilling, chairman.

OCTOBER 7

Piedmont Division, probably Charlotte, N. C. B. M. Bowen, chairman.

OCTOBER 14

Northern North Carolina-Virginia Division, Greensboro, N. C. W. J. Jennings, chairman.

OCTOBER 21

Northern Master Mechanics' Division. W. H. Leathers, chairman.

NOVEMBER 4

Eastern Carolina Division. J. B. Batten, chairman.

NOVEMBER 11—DECEMBER 2

South Carolina Division. This division has two sections, the Carders and Spinners' Section, and the Weavers and Slashers' Section. Decision has not been made as to which section will use which date. G. C. Simmons, chairman.

NOVEMBER 16

Southern Master Mechanics' Division. Fred Tindall, chairman.

Textile Operating Executives of Georgia

Editor's Note: The Textile Operating Executives of Georgia, while not affiliated with the Southern Textile Association, is organized along similar lines, and the meetings are conducted usually as open forums for discussions of mill problems.

This group, serving the operating executives of Georgia, meets in Atlanta on September 23rd.

Tufted Candlewick Bedspreads

Part 2

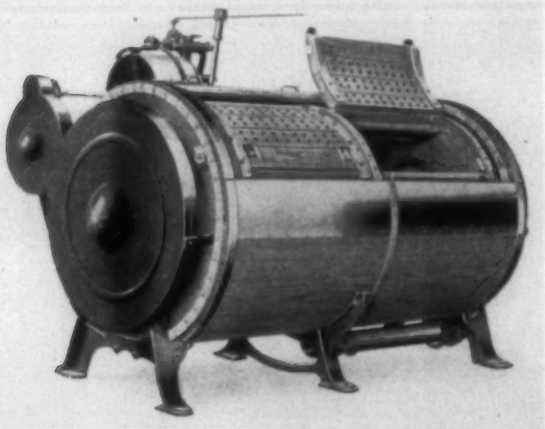
A Native Industry of the South

By Carl Bartell

THE writer has had a number of inquiries regarding the processing of the machine-made bedspreads and methods for handling same, so Parts II and III will take up this subject more fully than brought out in Part I in the August 15th TEXTILE BULLETIN.

Throughout the South there has been quite a bit of interest aroused over the processing of the machine-made bedspreads in the gray yarn and sheeting without using the vat dyed sheeting and only using a minimum amount or no vat and naphthol dyed yarns for the design. This type of machine-made bedspread is made up under two general classes:

Class No. 1—The gray sized sheeting material is cut to required dimension, then sewed with a medium to heavy shade of vat or naphthol dyed yarn for the trimming or outline of design used. For the remainder of the design, gray cotton tufting or chenille yarn is used.



Standard Rotary Washing or Dyeing Machine—Wood Construction

Medium to heavy shades of rose, wine, red, brown, blues, and green are used in minimum amounts so when the bedspreads are then dyed in the pastel to medium shades, the dyed bedspread will have two-tone color effect.

Class No. 2—The entire design for the bedspread is sewed in gray undyed yarns and the dyer then dyes the bedspread, thus giving a solid shade effect.

These two classes of bedspreads are classified as "dip dyed" bedspreads to differentiate them from the older type of hand-made or machine-made ones that used vat dyed sheeting with vat or naphthol dyed yarns for designs. The "dip dyed" bedspreads are dyed in many types of Rotary laundry washing machines usually having two packets in machine and the older type of hosiery dyeing paddle machine. (See illustration No. 1.)

Up to the present, plants dyeing these bedspreads have used the most expensive types of fast-to-light direct colors and due to the terminology used "fast-to-light." These dyers have taken this as implying fast-to-washing also which is not generally correct. Several of the most wide-awake of these plants are now investigating this phase of wash fastness and this will be taken up later in the article.

The first type of dyeing equipment used was the two-pocket enclosed rotary laundry washing machine but this machine has the tendency to overcrowd easily and give shadiness or shade difference from one part of the machine to the other.

Quite a few of these dyeing faults as observed on the enclosed rotary machine were caused by one or more of

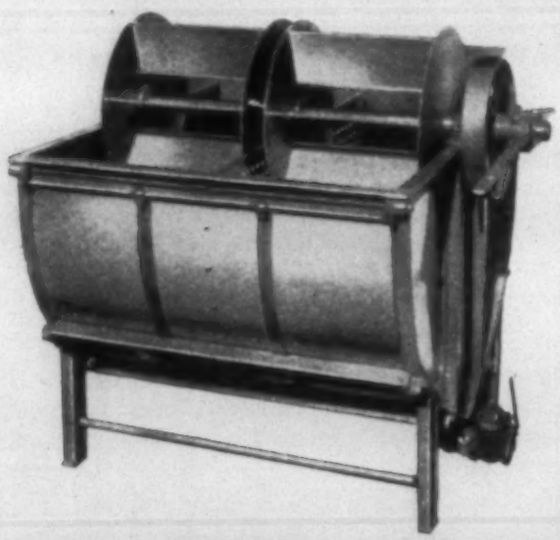


Illustration No. 2—Standard Type Paddle Dyeing Machine—All Metal Construction

the following factors:

1. The first factor was the gray or unbleached sheeting material is usually heavily sized and a majority of the dyers not being thoroughly trained on this work usually gave the goods a short boil out with soap or soda ash preliminary to the dyeing operation. An experienced dyer would probably have had a case of jitters if he had been called upon to dye goods in a regular dyehouse on cotton piece goods not properly desized and boiled out but these

(*Continued on Page 34*)

The Processing of Spun Rayon and Spun Rayon Mixtures*

By William H. Cady

Chief Chemist of U. S. Finishing Co.

SPUN rayon fabrics should not be handled any more than is absolutely necessary, and every operation should have a definite purpose and should be planned with a full knowledge of the composition and structure of the cloth.

While the uses to which spun rayon is being put are contantly increasing, at the present time the principal fabrics in which this fiber predominates might be classified as follows: the challie, a lightweight, all-rayon dress material, usually printed; the shirting, similar in construction to the challie, but more closely woven, and usually containing either wool or acetate, which is frequently dyed in a contrasting color to the rayon; the shantung, an all-rayon dress fabric, characterized by thick and thin places in the yarn which produce the so-called linen effect; the gabardine, which may be composed of spun rayon alone or may contain wool or cotton as well; the hopsack, a closely woven sports fabric made of hard twisted yarn; the suiting, which frequently contains also wool and other fibers for special weaving and color effects; spun rayon and linen dress goods, containing both fibers in warp and filling alike; spun rayon and acetate dress goods of various weaves, and special mixtures of spun rayon and other fibers, mostly novelty fabrics, and consequently short lived.

No Universal Method of Handling

Owing to the difference in construction of these various fabrics, there is no universal method of handling them through the finishing plant.

The first operation in the finishing plant is usually singeing. Fabrics composed of spun rayon and wool are signed as a rule, also any all-rayon cloth which is particularly hairy. On the other hand, challies and shantungs are customarily not singed. The final decision whether to singe or not to singe often depends upon the customer's requirements for finish. Gas singers are universally used.

All goods containing 10 per cent or more of wool, and spun rayon fabrics in general which tend to roll up along the selvages or contain bad creases, are usually crabbed at this stage, in order to set the fibers and equalize the tensions on the various threads, and make a smooth, flat fabric. There are several ways of crabbing, but for the average fabric it is sufficient merely to pass it through hot and then cold water in full width and roll it up for an hour or two. In special cases it may be preferred to crab on the jig, by giving two ends in water at 150° F. or higher, and leaving on the shell for several hours. The crabbing temperature should be higher than that of any subsequent operation if the full effect of the crabbing is to be retained.

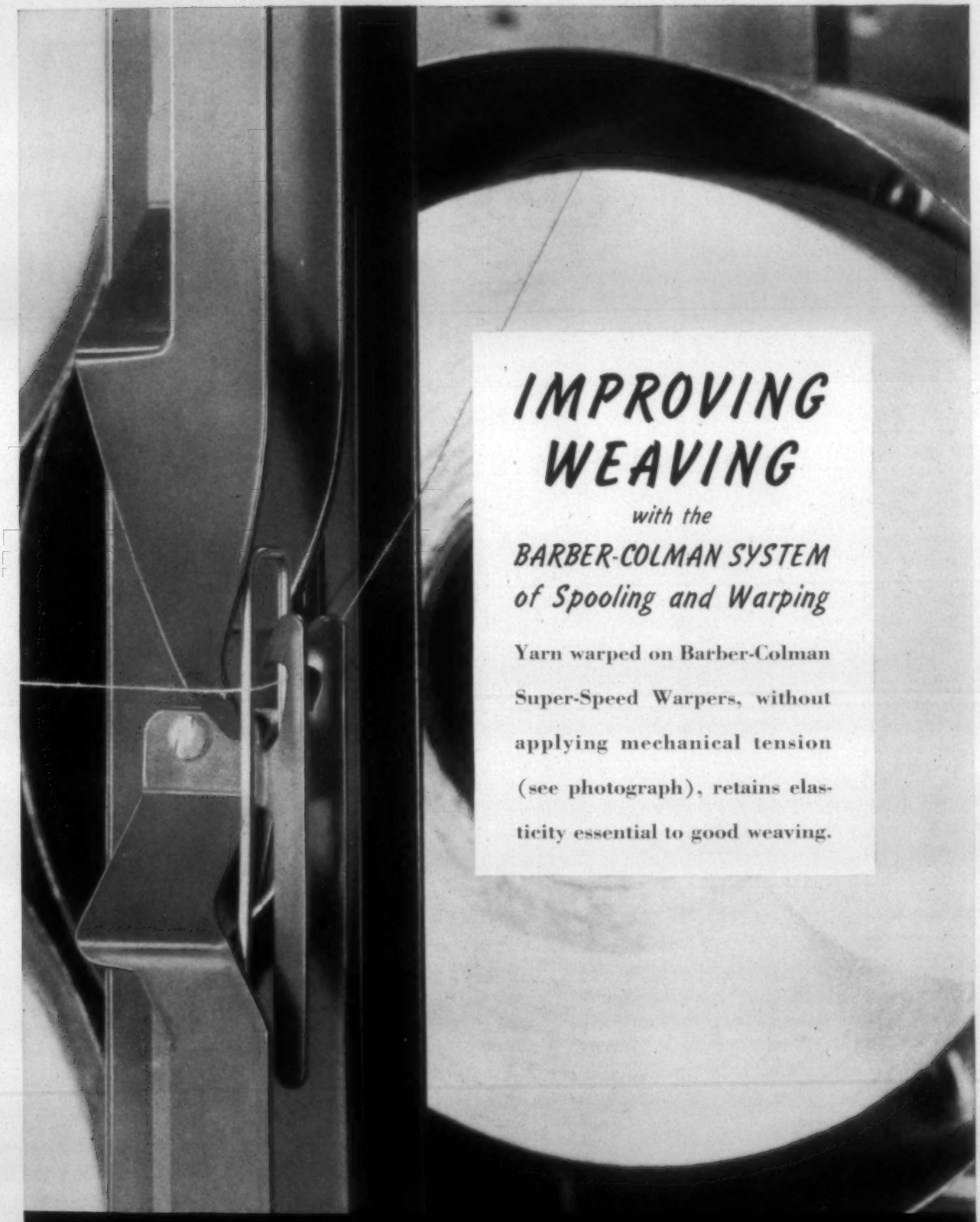
If the cloth contains starch it is best to give it a suitable enzyme treatment; this sometimes follows the singeing, in the same manner as with cotton goods. A gelatine size is less difficult to remove and usually comes out during the boil-off. especially if the goods have been previously wet out and allowed to lie wet for some time. If necessary, a treatment at this stage with a proteolytic enzyme will eliminate the gelatine completely.

Goods Seldom Mercerized

Spun rayon fabrics are seldom mercerized, as the alkali swells the fibers excessively and in that condition they are

(*Continued on Page 42*)

*Abstract of paper delivered before Committee D-13 of the American Society for Testing Materials, New York City.



IMPROVING WEAVING

with the

BARBER-COLMAN SYSTEM of Spooling and Warping

Yarn warped on Barber-Colman Super-Speed Warpers, without applying mechanical tension (see photograph), retains elasticity essential to good weaving.

BARBER-COLMAN COMPANY

ROCKFORD, ILLINOIS, U. S. A.

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY

Accident Rates In The Textile Industry

1938

Outstanding Facts About 1938 Experience

1. Nineteen hundred and thirty-eight injury rates were 6.73 for frequency and 0.59 for severity. These rates are much below the corresponding averages of 12.18 and 1.53 for all industries.

2. The improvement over 1937 was 24 per cent for frequency and 5 per cent for severity. Textile mills exceeded the average reduction in frequency by all industries and equalled the average decrease in severity.

3. Since 1926, frequency has decreased 65 per cent but severity is up 18 per cent. These results compare with reductions of 68 per cent in frequency and 44 per cent in severity for industry as a whole.

4. Large units had the lowest rates in 1938, averaging 5.85 for frequency and 0.48 for severity. Large units also improved most, compared with 1937.

5. Knitting mills had the lowest 1938 frequency rates, averaging 3.83, and silk and rayon mills had the lowest severity rates, averaging 0.21. Knitting mills also made the largest reductions in both injury rates, compared with 1937.

6. Working on machinery in motion was the principal unsafe act reported in 58 serious injuries.

7. The principal mechanical cause involved in serious injuries was unsafe procedures, such as working methods, processes, planning, and poor housekeeping. Improper attitudes on the part of employees, particularly disobedience of instructions, were the most important personal causes.

8. The Clark Thread Co., Newark, N. J., holds the best known all-time no-injury record in the industry—6,792,695 man-hours.

Comparisons With Other Industries

Nineteen hundred and thirty-eight injury rates for the textile industry are based on reports from 156 mills in which employees worked 193,122,000 man-hours during the year. The frequency rate of 6.73 is 45 per cent below the average for all industries and the severity of 0.59 is 61 per cent lower than the general average. Textile mills ranked fourth in both frequency and severity, among 30 major industries.

The industry has been unsuccessful in reducing the severity of injuries over a period of time.

This rate now stands -8 per cent above the 1926 level although there has been a 44 per cent improvement in severity by industry as a whole.

Industry	Frequency Changes 1937 to 1938 %	Frequency Changes 1926 to 1938 %	Severity Changes 1937 to 1938 %	Severity Changes 1926 to 1938 %
Textile	−24	−65	− 5	+18
All Industries	−16	−68	− 5	−44
Chemical	−23	−75	−90	−38
Tanning and Leather	−13	−58	−56	−34
Paper and Pulp	−26	−72	−48	−69
Rubber	−12	−72	−43	−58

Experience By Type of Injury

Temporary total disabilities have dropped 67 per cent since 1926 and permanent partial disabilities are down 43%, but fatalities have increased five fold. The rise in the severity rate for all types of injuries is due, therefore, to the jump in fatalities.

	All Injuries	Death and Perm. Total	Perm. Partial	Temp. Total
1938 Frequency Rate	6.73	.04	.40	6.29
1938 Severity Rate	.59	.24	.24	.11
	%	%	%	%
Change in Frequency 1937 to 1938	−24	+ 50	−20	−24
Change in Severity 1937 to 1938	− 5	+ 50	−26	0
Change in Frequency 1937 to 1938	−65	+647	−43	−67
Change in Severity 1937 to 1938	+18	+647	−52	−17

Experience in Various Size Groups

Unlike 1937, small plants had the worst records in 1938. They averaged 9.98 in frequency against 5.85 for large units and in severity they averaged 1.15 against 0.48 for large organizations. As shown in the following tabulation, average severity in small units rose sharply over 1937.

Size Group	1938 Frequency Rate	1938 Severity Rate	1937-1938 Change in Frequency	1937-1938 Change in Severity
Large	5.85	.48	−15%	0%
Small	9.98	1.15	− 9%	+24%

Causes of Serious Accidents

During the last five years, companies having fatalities or permanent partial disabilities have been requested to report the circumstances involved in such injuries so that better information could be developed on the fundamental causes of serious accidents in the industry. Summary reports for the last five years have listed 390 serious injuries and 120 of these cases have been reported in detail. An analysis of the circumstances involved in these accidents discloses:

Agencies of Injury. Machines, principally carding,

(*Continued on Page 35*)

How To Prevent Uneven Yarn

Following are further articles submitted in the contest on "How to Prevent Uneven Yarn." A total of 75 articles were submitted, and the winners will be announced as soon as the judges have had time to properly read the articles and judge their merit.

NUMBER TWENTY-SIX

In the consideration of the subject of the prevention of uneven yarn, one wonders if there is any such thing as absolutely *even* yarn. If we are expecting the production of yarn that is perfectly uniform throughout its length, and is this way throughout the year, we doubt that such yarn could be produced from cotton. If, on the other hand, we are talking about yarn that is even, within reasonable limits, and averages this from day to day, then we hold that the production of such yarn might be possible.

Anything that is worth doing at all is worth doing well, the substance of an old adage, will certainly apply in the case of the prevention of uneven yarn. If a mill wants to make even yarn, a price will have to be paid. This price may include some new equipment. The price will certainly include some work and attention to details on the part of the management, especially the overseers, the second hands, and the section men.

In the first place, if uneven yarn is to be prevented, the cotton should be carefully selected, and the grades properly blended. It might possibly be necessary to use blending feeders instead of feeding the bale breakers by hand. All of the opening equipment, including the conveying system, should be in good condition, and the cotton delivered to the pickers by a good automatic feeder.

The setting of feed rolls and grid bars on the pickers will depend upon the class of work and cleanliness required, but these settings should be uniform. The eveners should be in good shape, with belts that pull properly. The knock-off motion should deliver laps of uniform length, otherwise it will be impossible to tell when the laps are weighing correct. And at this point, proper supervision is necessary to be sure that only those laps that weigh within the tolerance decided upon are passed and allowed to be carried to the card room.

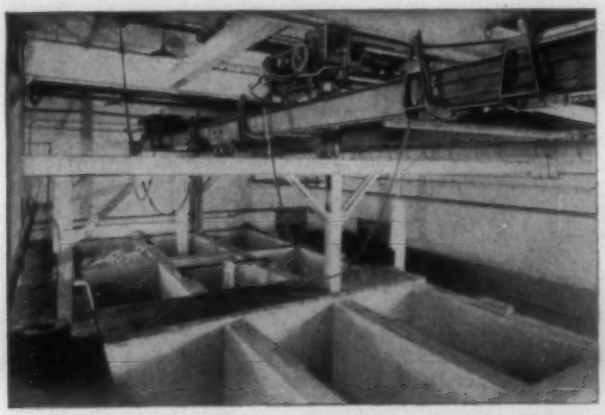
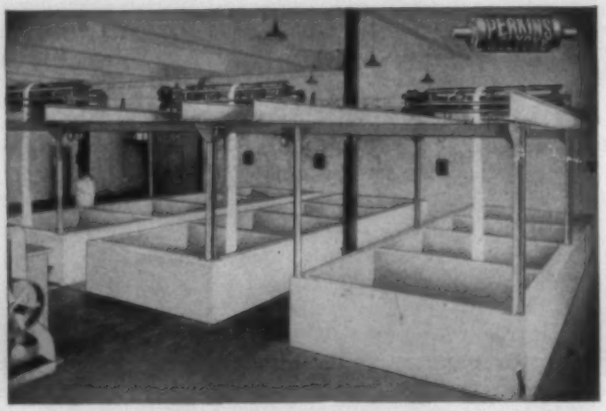
The passage of the cotton through the card room is too big a subject to treat in detail in just a few brief paragraphs, yet the evenness of the yarn will depend, very largely, upon what happens to the stock in this important department. The cards must be in good mechanical condition, the clothing properly ground, and all parts correctly and *uniformly* set. Sufficient stripping must be done. Operatives must not allow thick and thin places to get by in the sliver in getting up ends that are down for any reason.

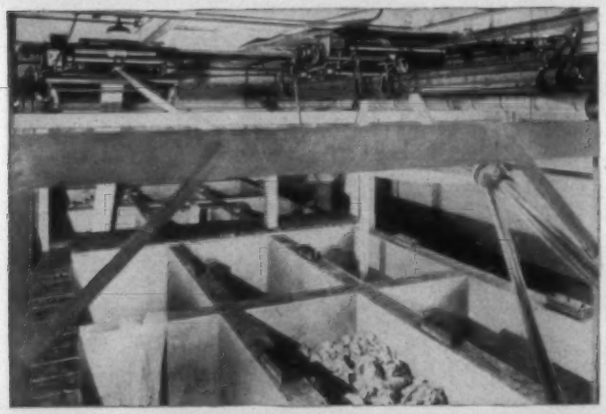
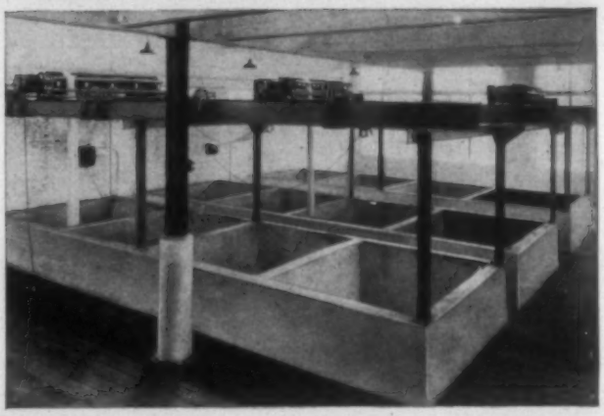
In this discussion we are assuming that consideration is being given only to carded yarns and not to combed yarns. It used to be thought that the more doublings that could be obtained in the card room, the better chance for thich and thin places to be equalized. Now it is more generally believed that better results may be obtained by more careful preparation of the raw cotton and by more accurate and uniform settings of the machines in the carding and spinning rooms. The introduction of the long draft principles on roving frames is a step in the right direction. Improvements are being made in the drawing frames. Fewer doublings are necessary, the stock goes through fewer machines, is handled less, and as the newer drafting systems are designed to control the shorter fibers, and to allow them to pass forwards in their proper turn, the roving is much more even than that under less favorable conditions.

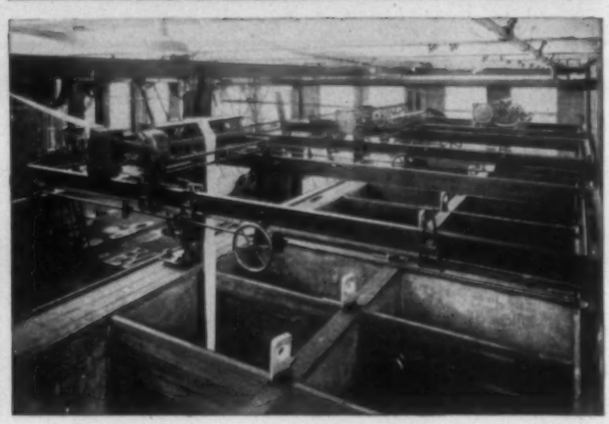
While the production of good roving is essential to the making of even yarn, we would not say that this is all that is necessary to be done. It is entirely possible to nullify the good work in card room by lack of attention to important details in the spinning department. Spinning frames do not necessarily have to be new to produce good yarn, but they do have to be in good condition. A regular and systematic program of overhauling, properly supervised, is necessary if the spinning frames are to be kept up as they should be. This should be in addition to the regular fixing schedule.

While space does not permit going into detail as to all that should be done in the spinning room to prevent uneven yarn, some very important things include: proper roll setting (on frames that require this), correct draft and twist gears, condition of rolls, both steel rolls and

(*Continued on Page 47*)



PERKINS BIN PILERS. These automatic machines eliminate hand labor and losses due to soilage, and snarling or knotting. They pay for themselves in less than two years.

Typical Perkins Bin Piler Installations:—

Appleton Company
Apponaug Co.
Arkwright Corporation
Arnold Print Works
Aspinook Corp.
Bellman Brook Bleachery
Cannon Mills Co.
Chicopee Manufacturing Corp.
Clearwater Manufacturing Co.
Columbia Mills, Inc.
Cranston Print Works Co.
Crystal Springs Bleachery
Dan River Cotton Mills
Danvers Bleachery
Defiance Bleachery
Delta Finishing Co., Inc.
Dodgeville Finishing Co.
Dutchess Bleachery, Inc.
East Lyme Bleachery
Erwin Cotton Mills Co.
Fall River Bleachery
Glenlyon Print Works
Hampton Co.
Johnson & Johnson, Inc.
Kerr Bl. & Fin. Works, Inc.
Lewiston Bl. & Dye Works
Lincoln Bl. & Dye Works
Llondale Bl. & Pr. Wks.
Millville Mfg. Co.
Montreal Cottons, Ltd.
Morgan & Hamilton
Mt. Hope Finishing Co.
Nashua Mfg. Co.
No. American Lace Co.
North Carolina Finishing Co.
Pacific Mills (Lawrence, Mass.)
Pacific Mills (Lyman, S. C.)
Pontiac Bleachery
Providence Dy., Bl. & Cal. Co.
Proximity Mfg.Co.
Quaker Lace Company
Queen Dyeing Co.
Rock Hill Print. & Fin. Co.
Rockland Finishing Co.
Rosemary Manufacturing Co.
Sayles Biltmore Bleacheries
S. Slater & Sons, Inc.
Slatersville Finishing Co.
Standard Bleachery Co.
Sterilek Co., Inc.
Stevens Linen Works
Thomaston Bleachery
Union Bleachery
United States Finishing Co.
Utica Willowvale Bleaching Co.
Waldrich Bleachery
Western Shade Cloth Co.
Wilkes-Barre Lace Mfg. Co.

B. F. Perkins & Son, Inc., Holyoke, Mass.

"Textile" Opens Office in Charlotte

The Textile-Finishing Machinery Company announce they have opened a branch office in Charlotte, N. C., room 1410, Johnston Building, adjoining that of H. G. Mayer.

Samuel A. Moffit has been employed as sales engineer, and Byram B. Scantland and Mr. Moffit will make the Charlotte office their headquarters.

Mr. Mayer will continue to represent the company as agent in North Carolina and South Carolina, with the exception of certain accounts and the addition of others elsewhere.

Messrs. Scantland and Moffitt will assist Mr. Mayer and represent "Textile" directly in the South with all accounts other than those handled by Mr. Mayer.

New Orleans Branch of Solvay Sales Corp. In New Quarters

Effective September 25th, the New Orleans branch of the Solvay Sales Corporation will be located at 1101 Hibernia Building, 812 Gravier St. The telephone number will remain the same—Raymond 6343.

Roy Noble Adds to Plant

Roy Noble, New Bedford, Mass., manufacturer of temple rolls, has completed an addition to his plant which triples his floor space. He is also installing additional machinery. This plant expansion has been made necessary because of increased business, according to Mr. Noble. This firm is represented in the South by John P. Batson, Greenville, S. C.

E. H. Jacobs Mfg. Co. Takes Over Warren Pulley Cover Co.

The E. H. Jacobs Manufacturing Company of Danielson, Conn., has taken over the Warren Pulley Cover Company of Lawrence, Mass., and has moved the machinery and equipment to its plant at Danielson, where this synthetic leather pulley lagging or covering will be manufactured.

The production is nationally distributed by jobbers and manufacturers' agents.

Later, part of the equipment will be moved to Charlotte, N. C., in the factory of the E. H. Jacobs Manufacturing Corporation, a subsidiary of E. H. Jacobs Manufacturing Company, to take care of their Southern customers.

Rubber-Cotton Barter Revived

London.—Great Britain has taken steps to make operative the scheme to barter rubber for United States cotton.

The International Rubber Committee announced it was raising the export quota for the final quarter to 70 per cent of basic tonnages. On July 25, the committee had boosted the quota from 55 to 60 per cent and announced this figure would hold through the fourth quarter.

This move was taken at the request of the British government. It will provide additional supplies to implement the barter plan.

Simultaneously the ministry of supply announced that it will open an office for the purchase of rubber for delivery to the United States. This does not mean buying will begin at once, it was said.

Sea Island Cotton Grown in Texas

Harlingen, Tex.—The first Sea Island cotton ever grown and ginned in the Lower Rio Grande Valley was recently sold to the Lily Mills of Shelby, N. C., for a premium of 30 cents a pound. It marked the beginning, it is believed here, of a program of producing that high grade staple in this area.

Cotton Consumed in August 69,039 Bales More Than '38

Washington, D. C.—The Census Bureau reported cotton consumed during August totaled 628,448 bales of lint and 73,646 of linters, compared with 521,405 and 74,032 during July of this year, and 559,409 and 71,455 during August of last year.

Cotton on hand August 31 was reported held as follows:

In consuming establishments, 653,874 bales of lint and 288,784 of linters, compared with 861,656 and 290,732 on July 31 this year, and 1,059,052 and 269,864 on August 31 last year.

In public storage and at compresses, 11,805,195 bales of lint and 81,818 of linters, compared with 11,620,955 and 99,724 on July 31 this year, and 9,825,329 and 95,948 on August 31 last year.

Imports for August totaled 13,494 bales, compared with 15,840 in July this year, and 18,271 in Iugust last year.

Exports during August totaled 218,792 bales of lint and 33,017 of linters, compared with 106,531 and 19,820 during July this year, and 200,843 and 14,740 during August last year.

Cotton spindles active during August numbered 22,012,186, compared with 21,915,363 during July this year, and 22,157,528 during August last year.

Cotton consumed in August included: In cotton-growing States, 531,632 bales, compared with 442,138 during July this year, and 470,431 during August last year; and in New England States, 77,937 bales, compared with 63,598 and 73,002.

Cotton on hand August 31 included:

In consuming establishments: In cotton-growing States, 494,911 bales, compared with 681,708 on July 31 this year, and 856,529 on August 31 last year; and in New England States, 128,538 bales, compared with 144,847 and 153,944.

In public storage and at compresses: In cotton-growing States, 11,777,604 bales, compared with 11,586,745 on July 31 this year, and 9,757,925 on August 31 last year; and in New England States, 23,463 bales, compared with 29,765 and 55,693.

Cotton spindles active during August included: In cotton-growing States, 16,594,268, compared with 16,526,873 during July this year, and 16,786,294 during August last year; and in New England States, 4,791,932, compared with 4,760,550 and 4,757,530.

Personal News

O. G. Morehead has resigned as superintendent of the Jennings Mill, Lumberton, N. C.

Miss Bert Alexander has been made secretary-treasurer of the York Yarn Mills, York, S. C.

J. C. Moreland is now overseer of spinning at Judson Mills, Greenville, S. C.

James J. Cloninger was recently named general manager of the York Yarn Mills, York, S. C., at a reorganization meeting.

Lee McLemore, formerly of Anderson, S. C., is now superintendent of the Bladenboro Cotton Mills, Bladenboro, N. C.

K. B. Every, of Riverside Mill, Anderson, S. C., is now overseer of carding at the Gossett Mills at Pendleton, S. C.

T. J. McNealy has resigned as superintendent of the Rhodes-Rhyne Manufacturing Company, Lincolnton, N. C.

R. D. Dockins has resigned his position as overseer of the cloth room at Bath Mills, Inc., Bath, S. C., to accept a similar position with a mill at Columbus, Ga.

R. B. Hubbard, secretary of the McIntosh Mills, Newnan, Ga., has been named to fill the vacancy of the light and water commission of Newnan, created by the resignation of D. S. Cuttino.

W. L. Taylor has resigned as superintendent of Globe Mills Company, Mount Holly, N. C., to become superintendent of the Sellers Manufacturing Company, Saxapahaw, N. C.

J. W. Quinn, formerly with American Yarn & Processing Company, Mount Holly, N. C., has accepted a position with Sapona Cotton Mills, Inc., Cedar Falls, N. C.

J. Robert Laurens has been promoted from second hand in weaving to overseer of the cloth room, Bath Mills, Inc., Bath, S. C.

W. Lee Smith is now superintendent of the Woodlawn Plant of the American Yarn & Processing Company, Mount Holly, N. C.

James Ballock has become superintendent of the Renfrew Bleachery, Travelers Rest, S. C., succeeding Chester L. Eddy.

Ray Swetenburg, general superintendent of the Ware Shoals Manufacturing Company, Ware Shoals, S. C., was married to Miss Johnnie Bowie, of Starr, S. C., recently.

William S. Anthony is now connected with the Columbus, Ga., employment office of the Bibb Manufacturing Company.

O. A. Sullivan, formerly superintendent of the Gaffney Manufacturing Company, Gaffney, S. C., has accepted the position of superintendent of the Jennings Mills, Lumberton, N. C.

Wm. C. Cannon has been elected a director and assistant secretary of the Cannon Mills Company, Kannapolis, N. C. He is a son of Charles A. Cannon, head of the company.

D. C. Chandler has resigned as overseer of spinning at Judson Mills, Greenville, S. C., to become general overseer of carding and spinning at Watts Mills, Laurens, S. C.

F. H. Whitesides, formerly overseer of spinning at the Woodlawn Mill of the American Yarn & Processing Company, is now superintendent of the Globe Mills Company, Mount Holly, N. C.

W. G. Grantham, of Dillon, S. C., has joined the staff of the Piedmont Color & Chemical Company, High Point, N. C., as head chemist. Mr. Grantham is a graduate of the University of South Carolina.

Lester H. Browder has been appointed as assistant treasurer of the Riverside & Dan River Cotton Mills, Inc., Danville, Va. He will also continue to operate as company credit manager.

Claude H. Reed, secretary and office manager of the Elmore Corporation, Spindale, N. C., has been elected secretary and office manager of the Forest City Building & Loan Association.

G. D. Smith, formerly cloth room overseer at plants Nos. 2 and 3 of the Easley Cotton Mills, Liberty, S. C., is now cloth room overseer at the No. 3 plant of the Chadwick-Hoskins Company, Charlotte, N. C.

P. C. Story, formerly manager of the Randtex Mills, Inc., Randleman, N. C., is now superintedent of the Rhodes-Rhyne Manufacturing Company and Elizabeth Indian Creek Cottons, Lincolnton, N. C.

W. B. Duncan, formerly overseer of spinning at the Glenn Manufacturing Company, Lincolnton, N. C., is now overseer of spinning at the Highland Park Manufacturing Company, Mill No. 2, Rock Hill, S. C.

Chester L. Eddy is Now Arnold, Hoffman's Southern Manager

Chester L. Eddy is now Southern district sales manager for Arnold, Hoffman & Co., manufacturing chemists (with main office in Providence, R. I.), under the direction of Joseph A. Bryant, vice-president and general sales manager. Mr. Eddy's headquarters will be at 904 Woodside Building, Greenville, S. C.

Mr. Eddy has had a long and varied experience in textile finishing and is well known in the textile industry, both North and South, being among other things, a past president of the Piedmont Section of the American Association of Textile Chemists and Colorists.

Coming to Arnold, Hoffman & Co. from Renfrew Bleachery, Travelers Rest, S. C., where he was superintendent and assistant manager. He has also been associated with the following companies during the last 36 years, in most cases in an executive capacity: Sayles Bleacheries, Saylesville, R. I. (superintendent of production); Silver Spring Branch, U. S. Finishing Company (indigo dyer), Silver Spring, R. I.; Waldrich Company, Delawanna, N. J. (assistant dyer); Chadwick Print Works, North Dighton, Mass. (indigo expert); Slatersville Finishing Company, Slatersville, R. I. (assistant plant superintendent); Eddy Finishing Company, Arcadia, R. I. (own plant); Gates Finishing Company, Medford, Mass. (superintendent print works); Dodgeville Finishing Company, North Attleboro, Mass. (started plant); American Finishing Company, Memphis, Tenn. (manager).

Ben B. Peacock Joins Whitin Machine Works

Charlotte, N. C.—Ben P. Peacock has joined the Southern sales force of the Whitin Machine Works, with headquarters in Charlotte. Mr. Peacock was graduated in textiles from the Georgia School of Technology and was for a number of years sales engineer of the Foxboro Company. However, more recently he has been associated with research projects in textile manufacturing being carried on in the textile department of the Georgia School of Technology.

John C. Robertson to Represent Beach Soap Co.

John C. Robertson, formerly with the Du Pont Compani, will in the future act as representative for the Beach Soap Company in North and South Carolina and Virginia. Headquarters for the Beach Soap Company is in Lawrence, Mass.

Additions to Staff of Carolina Aniline & Extract Co.

E. B. Wheeler and Thomas J. Hall have recently joined the sales staff of the Carolina Aniline & Extract Company, Charlotte, N. C.

Mr. Wheeler will head the newly formed department specializing in all chemical phases of silk and rayon soaking.

Mr. Hall will head the department devoted to piece goods dyeing, bleaching, and finishing.

A number of new products have been developed by the research department for silk and rayon soaking, piece goods dyeing, bleaching, and finishing, it is reported.

The Textile Shop Issues Catalog

The Textile Shop, of Spartanburg, S. C., has recently issued a very attractive catalog showing a number of the products and services they are furnishing the textile industry.

The catalog contains a number of illustrations and descriptions of the Patented Vacuum Cleaning System of the company, pneumatic conveying and ventilating, coppersmithing and sheet metal work, metal stampings and screw machine products.

The Textile Shop has recently completed its fifth expansion in seven years, and is now housed in a modern manufacturing building of brick and steel. Ernest J. Eaddy, registered engineer, is head of the company.

OBITUARY

A. B. CARTER

A. B. Carter, of Taylorsville, N. C., and president of A. B. Carter, Inc., Gastonia, N. C., died at the Mercy Hospital, Charlotte, N. C., on the evening of September 15th and was buried at Gastonia, N. C., on September 17th.

Mr. Carter was born April 14, 1877, in Cedar Falls, Chatham County, the son of the late Henry Clayton Carter and Ellen Leonard Carter. Largely self-educated, he began his career in textiles as a boy with the J. M. Odell Mfg. Co. at Bynum, N. C., later studying at night in Lowell Textile School at Lowell, Mass., while working there during the daytime for Lowell Mfg. Co.

A. B. Carter

For several years he traveled for the Southern and Western Textile Excelsior, a textile journal located at Charlotte, N. C.

He was connected for a time with Lowe Mfg. Co. at Huntsville, Ala., and was superintendent of Georgia Mfg. Co. at Whitehall, Ga., later moving to Athens, Ga. In 1909 he formed a business connection with Victor Ring Traveler Co. which lasted until 1932.

In 1914 he moved to Greenville, S. C., where he was one of the originators of the Southern Textile Exposition, big annual textile show held at Greenville.

From Greenville he came to Gastonia as a manufacturer's agent in 1821. He was president and treasurer of Mill Devices Co., acquiring this property after serving as the company's sales manager, beginning in 1924. A number of years ago he extended his operations in the textile industry, purchasing Carter Mill No. 1 at Lincolnton from the Gray-Separk interests, and acquiring the present Carter Mill No. 2 at Taylorsville.

In 1933 Mr. Carter founded the Carter Traveler Co., only plant south of New England manufacturing ring travelers for the textile trade.

He moved from Gastonia to Taylorsville, which he twice served as mayor. In the last State legislative elections he was elected to the Legislature from Alexander County, but the condition of his health did not permit him to serve.

Maintaining a keen interest in civic and fraternal activities as well as business and political affairs, Mr. Carter was a charter member of the Rotary Club of Greenville, S. C., was president of the Taylorsville Rotary Club, organized last year.

He was a Mason and was affiliated with the Odd Fellows and the Benevolent and Protective Order of Elks.

Surviving are his widow, Mrs. Mae C. Carter, of Greenville, S. C.; his son, A. Dewey Carter, of Gastonia, and two daughters, Mrs. Ed. S. Kempton and Mrs. E. H. Gregg, both of Gastonia, and several grandchildren.

B. R. BURNHAM

Greenville, S. C.—B. R. Burnham, 46-year-old Greenville merchant and former Spartanburg textile executive, was accidentally shot to death in his place of business in uptown Greenville September 15th.

Before entering business in Greenville nearly two years ago, Mr. Burnham was superintendent of the Pelzer Mills at Pelzer for a period of four years and prior to that time had served as superintendent of the Whitney Mills of Spartanburg and also Mills Mill of Woodruff.

He was shot as he was alone in his retail house furnishing store at 40 Norwood street, Greenville. Neighboring merchants heard the report of a shot in the store and upon investigation found Mr. Burnham on the floor of the establishment.

Nearby were two automatic pistols which he evidently had been cleaning at the time of the shot, as a small oil can and cleaning rods and rags were at his side.

He was rushed to St. Francis Hospital, but was dead on arrival.

Coroner George W. McCoy said following an investigation that the shooting was accidental and that no inquest would be held.

M. B. PITTS

M. B. Pitts, of Charlotte, N. C., died on September 15th at Jacksonville, Fla. Although retired for several years, Mr. Pitts was formerly a well known superintendent and manager of cotton mills at Anderson, S. C., Elberton, Ga., and other points.

He is survived by his daughter, Mrs. Irwin Henderson, of Charlotte.

ARTHUR THORPE

Atlanta, Ga.—Arthur Thorpe, 60, foreman of the textile plant at the Federal Penitentiary here and former textile mill operator in Gastonia, N. C., died at his home September 9th.

Born in Manchester, England, Thorpe came to America at the age of 11, gained experience in textiles around Boston, and came South 30 years ago. He took charge of the Federal Prison mill eight years ago.

W. H. McKINNEY

Newberry, S. C.—William H. McKinney, 46, for the last eleven years superintendent of the cloth room of the Oakland Cotton Mill, local unit of the Kendall Co., and associated with the mill for 22 years, died recently in a local hospital following an illness of several weeks.

WILLIAM CHILTON DAY

Danville, Va.—William Chilton Day, who was private secretary of the late H. R. Fitzgerald at the time that the organization program of the Dan River Cotton Mills was being carried out, died in Memorial Hospital, Danville, recently following an operation which he underwent August 24th.

TEXTILE BULLETIN

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Price Advances Justified

In one issue of the *Daily News Record*, we notice two front page articles relative to protests by retail organizations against what they describe as "undue advances" in textile prices.

Whenever cotton declines or anything happens which can be used as an excuse for paying a lower price for goods or yarns, buyers quickly make lower offers, and no one has ever heard either wholesalers or retailers say anything about "undue declines." It is not unusual to hear that buyers have demanded price reductions upon orders already placed.

In times such as have recently been witnessed, many buyers resort to sharp practices, and rumors of low prices being accepted by this or that mill are freely circulated.

One selling agent recently visited a North Carolina full fashioned hosiery manufacturer and, in an effort to keep him from advancing prices, represented that another large North Carolina full fashioned manufacturer had booked a large order at former prices.

We had occasion to investigate the statement and found that it was absolutely false and we are informed that many of the current statements about mills booking goods at low prices are false. Frequently, orders booked at such prices, are for seconds or off grade goods.

The buyer or selling agent usually saves himself by saying that he "understands" or "has heard" that such sales have been made, but in most cases they are using rumors or "manufacturing information" for the purpose of influencing prices.

There has been a long period of low prices for cotton goods and yarns, and as the result, stocks of goods, held by mills, have in many lines been reduced to a very low point. Merchants have felt secure, and having become accustomed to obtaining prompt shipment from mills and converters, have allowed their stocks to become depleted.

Under such circumstances, had there been no war, it was reasonable to expect a period of activity.

Germany is now completely blockaded and can ship no textiles to South America or to customers in other sections. England and France will not only need large supplies, but have drawn into the army young men who would otherwise be engaged in manufacturing, and will not be in position to supply its overseas customers.

England and France may not find it advisable to sacrifice a million men in order to break through the Seigfried Line, and knowing that it can ruin Germany economically by preventing it from shipping goods abroad, may prefer to bring about a slow death through a blockade.

There is every prospect that the war will last for several years and under such circumstances, the United States will be called upon to supply goods to many countries.

We feel that cotton mills are justified in advancing prices to profitable levels and can see no reason why they should yield to the arguments or tricks of the buyers.

War

Wars are won at the end and not at the beginning.

That, most significant, statement has been made by one in high authority in England and is a reflection of the grim determination of the Allies and their realization that they are facing a road upon which there is to be great distress and great suffering before the end is reached.

As we see the situation, there can be, in spite of recent developments, only one end and that is the defeat of Hitler and his elimination as an evil influence in European affairs.

Italy may enter the war on the side of Germany, but we do not think so, because Italy has the third largest shore line in the world and would be unable to defend itself against the British and French warships. The Catholic Church, to which nearly all Italians adhere, will

stand firm against any alliance with the Soviet Reds.

Russia has entered the war upon the side of Hitler but it is a strange combination, because the communists have been violent in their hatred of Hitler and his Nazism. Hitler dares not trust Stalin nor does Stalin dare trust Hitler.

It is improbable that the Russians will do much fighting, for one reason because Stalin is fully aware that, due to the oppression which has existed under his regime, his army is ripe for mutiny and his country for revolution. The trade between Hitler and Stalin seems to be that Germany shall conduct whatever hostilities may seem necessary while the Soviet regime does its part by furnishing Hitler with supplies, the pay-off to come in the form of territorial gains.

The ability of Russia to furnish and large volume of supplies is questionable and still more questionable is her willingness to furnish them without being paid with goods or gold.

The United States may enter upon the side of Great Britain and France, but we devoutly hope that there will be no such eventuality.

There can be no doubt that sentiment in the United States is overwhelmingly and probably more than 90 per cent on the side of the Allies, but there is also a very strong sentiment against our becoming involved.

For once, we are upon the side of President Franklin D. Roosevelt and believe that the neutrality act should be revised to permit war supplies to exported upon a "cash and carry" basis.

There was a time when we thought that prohibition could be enforced, but found that in spite of rigid laws, liquor continued to come through.

In spite of laws and embargoes prohibiting the shipment of war supplies, they will go through, especially when sentiment in this country is so strongly upon the side of the Allies, and we might just as well permit shipments to be made openly, provided they are paid for and carried, by the purchasers, in their own ships.

We have been greatly interested and greatly amused by the plight of American communists.

A short time ago they were conducting an intense propaganda campaign against Adolph Hitler and filling our newspapers and magazines with attacks upon him, but Stalin, their comrade and their God, signed a pact with Hitler and has now joined Germany in an invasion of Poland and it can be noted that, in spite of his provoking a war, attacks upon Hitler have been greatly diminished.

The communists and friends of communism, including certain college presidents and professors, are now at sea. They do not know whether to attack or defend Hitler and are awaiting orders from Russia, but it is our guess that they will soon be shouting for Hitler and the Reds and the Bund will be meeting in joint sessions.

A. B. Carter

For about forty years A. B. Carter had been a prominent figure in the textile industry and news of his death will be received with deep regret.

It was in 1899 that the editor of this publication, while a card grinder at the Victor Mill in Charlotte, took part in a contest being run by the Southern and Western Textile Excelsior, the only textile journal in the South at that time, and won second prize.

Soon, thereafter, he was approached by the owners of the Textile Excelsior relative to writing editorials for them, and although his name never appeared in connection with the publication, did write all of the editorials for about two years.

It was while acting in such capacity that he met the live wire subscription solicitor of the Textile Excelsior, A. B. Carter, and there began a friendship which has lasted throughout the years.

When in 1908, our editor took the leadership in molding the Southern Textile Association, out of an organization which had been formed at Spray, N. C., A. B. Carter joined in the effort and served as secretary from 1913 to 1925.

His was a varied career, because, from subscription solicitor for a textile journal, he passed to overseer and superintendent of several mills, and then selling agent for mill supplies. Later he acquired the Mill Devices Co., two cotton mills, and at the age of 60 established the first ring traveler manufacturing business in the South.

We have known few men who had his energy or his ability to accomplish results. The textile industry has lost a colorful figure and we have lost a valued friend.

Faces We See

Under the above title, Mildred G. Barnwell, secretary of the Southern Combed Yarn Association, has published and issued a profusely illustrated book dealing with Southern cotton mill life.

The illustration covers not only life in the mill but in the village and home. It shows how mill people live and the amusements in which they participate.

Mill News

JACKSONVILLE, ALA.—It is reported that citizens here are making plans for the reopening of Profile Cotton Mills here.

LAWRENCEVILLE, GA.—The buildings and village of the former Windville Mfg. Co., a cotton mill, have been purchased by the General Shoe Co., of Nashville, Tenn. They will manufacture shoes.

LAWNDALE, N. C.—The Cleveland Mill & Power Co. is expanding facilities by adding a two-story addition, 17x 181 feet, according to John F. Schenck, president and treasurer. The addition is to furnish additional room for packing.

CENTRAL FALLS, N. C.—W. H. Grant, office manager of the Central Falls Mfg. Co., announces that work has already been started on the construction of a new brick building which will be used for warehouse purposes. The new building is scheduled to be completed by October 1st.

GRAHAM, N. C.—A newly organized concern for Graham is the Alamance Dyers, Inc., which will engage in the dyeing and finishing of textiles under an authorized capital stock of $25,000. A part of the stock was subscribed by the incorporators, Harper Barnes, W. F. Okey and Vera O. Swing, all of this place.

HICKORY, N. C.—A charter has recently been granted to Kenworth Knitters, Inc. Principal office, Hickory, to manufacture and sell hosiery. Authorized capital stock 500 shares, no par value. Subscribed stock 3 shares, by S. F. Menzies, Harold Lent and K. F. Menzies, all of Hickory.

BIRMINGHAM, ALA.—Donald Comer, head of Avondale Mills, Inc., states that for the past two months his plants have been undergoing modernization, which when finished will have cost approximately $750,000. Mr. Comer explained that the modernization was "normal procedure and in line with the policy of the company." He added that machinery was being renewed and changes were being made over to new processes.

GASTONIA, N. C.—Announcement is made here that Threads, Inc., is expanding its local unit with the addition of a finishing, storage and shipping plant adjacent to and connected with the west side of the present plant. Workmen are now engaged in excavating for foundations and the much needed addition will be ready for use as soon as possible. It is understood, from reliable sources, that the work at the Monticello, Ind., unit will be transferred to the new Gastonia unit as soon as the new plant is completed.

LANETT, ALA.—Ground has been broken for the erection of an addition to the Lanett Bleachery & Dye Works. John Simmons, superintendent, says the new building will be three stories high, and will give an additional floor space of 30,000 square feet. The annex will face the main highway.

Batson-Cook Company are the contractors. It is expected that the addition will be ready for occupancy by January 1st.

GREENSBORO, N. C.—George W. Kane, Inc., local building firm, has been awarded contract for construction of a one-story, brick and steel warehouse, with 20,000 square feet of floor space, in Burlington, by the Burlington Mills Co., at an approximate cost of $35,000, it was announced by officials of the company.

At the same time two other warehouse contracts were awarded, for two more warehouses, one at High Point, costing around $12,000, to Bager Bros., of Mooresville, and the other at Fayetteville, costing around $10,500, to the Fayetteville construction firm of Reincke-Dillehay Co.

MT. AIRY, N. C.—Construction was started September 15th on a new woolen mill here by Oscar D. Sides, well known local business man.

The mill, which will cover an area of 41 by 140 feet and will be a two-story frame building, will be completed by January 1st.

No contract will be let for the building. The construction is under the personal supervision of Sides, who is now connected with the Sides Mill & Ice Co. here.

The mill will manufacture woolen blankets and yarn. At this early date it is impossible to estimate the number of persons that will be employed due to the unlet machine contract, Sides said.

The mill is located on South street inside the city limits.

COLUMBIA, S. C.—Glencoe Cotton Mill property here was sold at public action September 4th for $28,751. The sale is subject to confirmation by the Circuit Court under whose order the mill operated in receivership for three years.

W. E. McNulty, agent, bid in the main plant and fixtures for $20,101 and a store building and six dwellings for $2,550. He said he could not divulge the name of the person or concern for whom the property was bought but asserted he was certain the mill would be operated by the new owner.

E. C. Townsend was high bidder with $6,100 on a third parcel, consisting of 18 tenant houses.

The court failed to confirm a previous sale when the City of Columbia offered $18,750 for the plant and private citizens bid $7,500 for tenant houses and the store building.

WAYCROSS, GA.—The Waycross Manufacturing Company has closed indefinitely, and all of the employees have been laid off. The plant has seven full fashioned machines of 45 gauge.

SALUDA, S. C.—J. A. Nichols, president, announced plans had been completed for the erection of a full fashioned hosiery mill here.

Nichols said orders for equipment totaling $45,000 had been placed and machinery would be installed October 1st.

SHELBY, N. C.—The Byrum Hosiery Mill, of this place, has been purchased by Earl A. Byrum, who originally established and operated the mill. Beginning immediately, the plant will operate under the name of Karoleen Knitting Mills, Inc.

Mr. Byrum said the plant, which produces men's and women's seamless hose, will be doubled in capacity and will employ 150 workers full time. New machinery has been ordered, he said.

For the past four years the plant has been operated under section 77-B of the bankruptcy act.

Approval of the sale of certain assets of Byrum Hosiery Mills was given in order filed in the U. S. District Court at Charlotte by Federal Judge E. Yates Webb.

Included were 81 300-needle Banner knitting machines to the Hemphill Company, Pawtucket, R. I., valued at $7,750, for cash, and $4,500 worth of assets to the Union Trust Company of Shelby.

The offers of the two companies were approved by creditors at a meeting held in Charlotte on August 28th.

SPARTANBURG, S. C.—Engineers are engaged in running out lines and placing stakes at the Springfield plant in Chester, S. C., for the probable enlargement of this plant, according to announcement by Elliott White Springs, of Fort Mill, president of the Springs Cotton Mills, operating three large plants in Chester, two at Fort Mill, one at Lancaster and one at Kershaw. Captain Springs was quoted as saying that the Springstein plant needs 40 additional cards and that the addition will be made to the spinning room of the mill provided plans materialize for the construction program. He added that no definite plans would be formulated until he receives a report from the engineers. In the event the addition is constructed, he added, the additional cards will be installed.

TALLAPOOSA, GA.—The Tallapoosa Mills, carded yarn mill, is in process of liquidation. This mill has approximately 17,000 spindles and in recent years the company has specialized in the manufacture of 20s single yarn for the pile fabric trade.

Some of the cards have already been sold at an average price of $225 and it is expected that the total proceeds from the complete liquidation will amount to approximately $160,000, being divided, about $80,000 for the mill, real estate and the dwellings, and approximately $80,000 from the machinery and equipment.

The property includes approximately 100 dwellings for housing the operatives. When operating the plant employs about 300 operatives.

Tufted Candlewick Bedspreads—A Native Industry of the South

(*Continued from Page 17*)

bedspread dyers were "neophytes" and just dyed them as if they had been a suit of clothes or a Palm Beach suit. In many cases the dyers have been successful in dyeing these sized sheeting material fairly level as they were only using 50-60% of the dyeing capacity of rotary washing machines. The goods had sufficient dye liquor to circulate in and gave fairly level dyed shades.

2. This calls up the second factor which was the low liquor ratio of dye liquor used for a given weight of goods being dyed—a ratio of 20:1 (20 pounds dye liquor to 1 pound of bedspreads) should be the minimum allowed or otherwise these sized sheeting material will be quite difficult for the dyestuff to penetrate and dye level. On the enclosed rotary machine the goods may shift from part of compartment to the other and this adds to streaked and unsatisfactory dyeing results.

3. The third factor was the careless selection of dyestuffs for a difficult job and in many sections the "hard" water conditions made the level dyeing that much more difficult to obtain.

4. The use of soap as a dyeing assistant was not very satisfactory and the use of good pine oil and patented penetrants has proven great help. Sulfonated fatty alcohol penetrants plus water softing compounds has proven of value for this work.

5. A fifth factor that caused blotchiness or shade difference in goods dyed on the older enclosed type of rotary machine is partly due to the construction of these machines. They are made of brass, galvanized basket, wood, and iron so you can see from this that it took a very good direct color to give any sort of satisfactory results when used.

These dyeing faults through the use of the older types of enclosed rotary machines led to experimentation and the adoption of the hosiery paddle machines. Many plants have used these machines in one of the following types of construction:

(1) All wood dye box with monel metal or stainless steel paddle.

(2) All wood box lined with stainless steel or monel metal.

(3) All monel metal or stainless steel box and paddle.

Numbers 2 and 3 are the best types to use, as a plant can dye a heavy shade, scour the machine and then dye a pastel shade satisfactorily. This could not be done on wooden box machine, as it would require a hydrosulfite and caustic "strip" to clean up wood machine after a heavy shade so as to dye a light one.

The dye liquor ratio is higher on a paddle dyeing machine and the live steam has an opportunity to keep the sheeting more opened up so as to give better dyeing results as a whole.

The dyed tufting is not flattened or frayed as much on the paddle machine as on the rotary type but it is advisable to stitch the bedspreads placing the face of the tufting yarns inside of bedspreads and protected from rubbing against side of machine or paddle.

This will assist in giving a tufting design that can be dryed and fluffed up to advantage. (See illustration showing laundry dryer and "tumber," as it is called.)

The usual capacity on paddle machine varies from 80-90%, according to weight of bedspread and the amount of tufting yarn that has been used on the design.

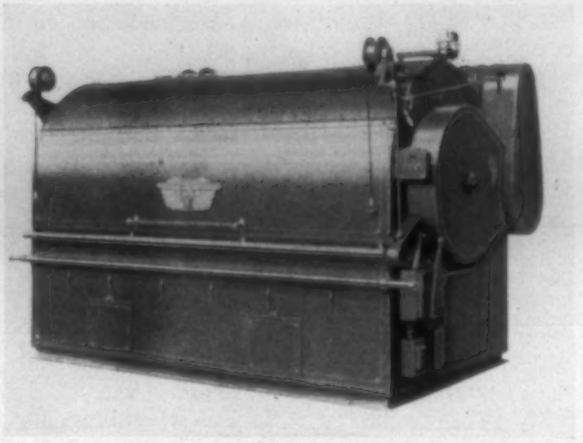

Illustration No. 3—Laundry Dryer

The following preliminary preparation and dyeing methods have proven advantageous in helping dyers to secure level dyed results both on the sheeting as well as the tufted yarns in pastel to heavy shades:

Method No. 1—Desizing and scouring in one bath preliminary to dyeing operation. (The amount of desizing agent required depends upon how heavily the sheeting is sized.)

1-3% Aktivin, Arcy, or suiting desizing agent.

2% Soda ash.

Run 30 minutes at 180° F., dry, rinse. Enter fresh bath with 1% penetrant cold, raise to 120° F., enter dissolved dyestuff in four equal portions from one end of machine to the other. Raise to 180-200° F., and run 20 minutes, then on all shades except medium and heavy shades add the salt previously dissolved. Shut off steam while salt is being added. Run 15-30 minutes at 180-200° F. to required shade. Drop bath, rinse till water is clear, drop, hydro-extract until goods contain only 100-150% as much moisture as dry weight of goods. Open bedspreads and enter into laundry dryer or tumbler, as it is called.

Method No. 2—Scouring the bedspreads without desizing agent preliminary to dyeing operations.

2% Soda ash.

2% Soap or penetrant.

Run 30 minutes at 200° F., drop, rinse, and enter fresh bath for dyeing operation as outlined under Method No. 1. This method usually requires a greater amount of penetrant than under Method No. 1 and the dyeing period and temperature may be increased so as to obtain satisfactory results.

Method No. 3—No preliminary scouring is given the bedspreads, the goods are only wet out preliminary to the dyeing operation.

2-4% Penetrant.

Raise bath to 140° and run 30 minutes, shut off steam and enter dissolved dyestuff and carry out dyeing operation as outlined under Method No. 1. The dyeing period usually required is longer than on either Methods Nos. 1 or 2.

Method No. 3 is the least expensive as to time, dyestuff, and chemicals required but does not give as satisfactory results as either Nos. 1 or 2 Methods.

More uniformly dyed results from lots to lots are obtained by the first two methods. Dip dyeing Method No. 1 is preferred for the better quality bedspreads so as to imitate as closely as possible the dyed appearance, feel, and finish of the more expensive vat and naphthol yarns and sheets as described in Part I of the series.

(To be continued)

Accident Rates in the Textile Industry—1938

(Continued from Page 20)

looms, twisting, and weaving, were outstanding agencies of injury, figuring in 63 per cent of all serious injuries. Working surfaces such as ladders, floors and platforms, were next in importance.

Agency of Injury	No. of Injuries
Total	120
Machinery	75
Working Surfaces	9
Vehicles	6
Hand Tools	5
Mechanical Power Transmission Apparatus	5
Not Otherwise Classified	20

Type of Accident	No. of Injuries
Total	120
Caught In or Between	71
Falling, Sliding, or Flying Objects	15
Falls on the Same Level	10
Striking Against	10
Not Otherwise Classified	14

Unsafe Acts by Employees. A tabulation of unsafe acts, based on 58 serious injuries reported during the last two years, shows that the following were of most importance:

1. Working on machinery or equipment in motion. For example, an employee with long experience lost a finger when he attempted to clean a machine while it was running.
2. Using hands instead of tools in cleaning, repairing and similar work.
3. Entering areas that are unsafe due to gases or electrical hazards or other similar conditions. For example, an employee walked across a floor that was being scrubbed, slipped, fell, and broke his leg.
4. Haste, such as running or working too fast.
5. Failure to wear safety shoes and goggles.

Mechanical Cause	No. of Injuries
Total	120
Unsafe processes, working methods, planning, poor housekeeping, etc.	43
Improper guarding	33
Defective materials and equipment	19
Non-use of safe apparel and devices provided by management	4
No mechanical cause	21

Personal Causes of Serious Accidents. Personal causes were assigned to 80 per cent of all serious injuries. Improper attitudes, particularly disobedience of instructions to stop machines when cleaning or adjusting, were of most importance, figuring in 60 per cent of the injuries. Other faults mentioned were recklessness, haste and abstraction.

Personal Cause	No. of Injuries
Total	120
Improper attitudes	60
Unaware of safe practices or lack of knowledge or skill	33
Physical defects	3
No personal cause	24

COTTON COMMENT

By Dameron Williams

From Sally To Little Willie

SALLY is a flop eared mule. She lives 'way down in the bottom part of the great state of Texas, and her chief business in life is to plow cotton. No great shakes as an economist, I seriously doubt if Sally fully appreciates the role she plays when she puts her shoulder to the collar, so to speak, and the plow point goes into the ground as the planting of the cotton crop starts in the United States just after the "turn of the year."

From then on Sally has the assistance and co-operation of countless other cotton planting mules, tractors, trucks, gins, compresses, railways, cotton mills, and merchandising units to the end that a cotton crop is produced, transported and processed right down to the new blue shirt little Willie had bought for him.

Lending their part, of course, are countless numbers of just plain human beings, starting out with the chauffeur who guides Sally's destiny and winding up with the clerk in the store who made the trade with little Willie's Ma in retailing the shirt.

Actually it doesn't end there for there's a big business in cotton rags which might have come from the shirt.

It seems to me that we frequently lose sight of all this when we make the claim that we can assist the cotton farmer, bring him better prices for his cotton crop, balance his production and do all these other things (following a theory of scarcity) to the end that the cotton crop may be arbitrarily reduced or increased by regimentation or whatever one wishes to term the process.

A lot of people depend on cotton for a living other than the cotton farmer himself. In striving for the best possible price we can for this farmer we have got to take into consideration these other people. The fact that they are employed or unemployed, have money to spend or are broke or whether they are forced on relief or not materially affects the cotton farmer himself.

Beyond fair estimates, it is not possible to exactly arrive at the number of people and their dependents who are directly or indirectly interested in our yearly cotton crops. The imagination staggers and takes the count when the attempt is made, but if you care to think along these lines, here are a few figures:

The Bureau of the Census estimates that on the approximately two million cotton farms in the United States, about 6 million people are given employment. This figure is probably low and does not take into consideration the farmer's children who are under ten years of age.

There are about 13,000 cotton gins in the United States. Some 87,000 people, the Bureau estimates, are employed in these gins.

In cotton warehouses and compresses, public and private, there are about 25,000 people employed.

The man responsible for buying, financing, handling, selling and shipping 75 to 80 per cent of our cotton crop is the cotton merchant.

Placing under this general classification the country cotton buyer, the merchant in the city, brokers, factors "fob" men, cotton exchanges and others engaged, it is my personal estimate that from 8,000 to 10,000 people gain their livelihood in the buying and selling of cotton in the United States.

In getting this crop moved from Sally the mule up to and including the cotton buyer and merchant, we have left out the people who operate trucks, railways, barge lines, manufacture gins and compresses, and sell them supplies. Nor have we considered the cotton seed oil mill, the delinting of the seed, the manufacture of bagging and ties, and a host of other processes and services incident to the handling of the crop up to the point where we have arrived.

When Sally's bale arrives at the cotton mill, some 400,000 mill employees are put to work in the United States. Again transportation has entered. Banks, telephone and telegraph companies do their part.

Once the cotton is fully processed we start more wheels turning, more people are put to work. We've got to call on transportation again, as well as a number of other agencies and services used in the first processes. Jobbers, wholesale houses, clothing manufacturers and finally the clerk in the store responsible for engineering that deal with Willie's ma for the shirt, enter the picture in a big way.

Again I start leaving out other considerations. The business in waste cotton is tremendous. Mills must purchase oils, coal, supplies, machinery, dyes and starches, for instance. Advertising agencies have done their part in giving employment.

Sally's chauffeur is a potential buyer of goods. The clerk in the store handling the cotton goods must buy goods of every description. In between these two extremes, countless thousands seek employment. Their buying power is greater or is less in direct proportion to their wages and hours of employment, and the size of the crop.

No total estimate, in my opinion, is possible. We must take into consideration not only the men and women engaged in the various services I have enumerated, but their families and dependents must be considered.

But it seems obvious that we can't take an arbitrary stand in this matter of regimentation of the cotton farmer. We can possibly reduce the size of the crop and raise the price level of cotton, but we have certainly affected many a man and woman along the route from planting to final retail sale when we have done so.

Demand for cotton has been very active in the combed yarn sections, particularly around Gastonia. Asking prices from shippers show a tendency to advance. Except in the Spartanburg section, where huge purchases have already been made, demand has been generally good. The government estimate of 12,380,000 bales, issued on the 8th, brought about a marked decline in prices. This estimate indicated an increase of nearly a million bales over previous estimates.

The International Conference of cotton producing nations seems to have run up against a blank wall. Secretary Wallace had hoped to bring about some adjustment or arrangement wherein each cotton producing nation would have its "fair share" of business. The war, with its unpredictable effect on world business, is chiefly responsible, it is said, for the breakdown of the conference.

Cotton is a strange animal. In 1914, when the old World War broke out, we had to close the exchanges to keep prices from going on down to nothing at all. This time cotton held and actually went up. The government loan policy entered the picture this time, however, a factor not present in 1914. That old story about the mill man who sent a wire in answer to the question "What is cotton going to do?" is probably true. He is reported to have wired, "Some folks say it's going up and some say it's going down. I think so too."

If you haven't gotten your copy of "Faces We See," a book recently published by Mrs. Mildred Barnwell, Secretary of the Southern Combed Yarn Association, with headquarters at Gastonia, you have missed something. The book, beautifully illustrated and with its material excellently arranged, is about as fine a portrayal of mill life and conditions in the South as we have seen. It should go a long way toward removing some of the false ideas certain newspapers and publications have about our Southern mills and their operatives.

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

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Concord, N. C.

North Carolina Mills Get $1,398,541 U. S. Contracts in 6 Mos.

Raleigh, N. C.—North Carolina textile mills were awarded contracts by the United Treasury Procurement Division during the first six months of this year totaling $1,398,541 for a combined yardage of 13,328,285 of their products, according to the Treasury Department.

Cotton Goods Markets

New York.—With news of war in Europe and the decision of Elmer Andrews to put the 32½-cent into effect on October 24th, gray goods have enjoyed several days of the most active trading for many years. Prices have advanced in all lines, and the opinion is that more price advances will be put through in the next few days and weeks.

It is apparent that mills are taking advantage of every possible constructive development. With many manufacturers, especially those in the heavy goods divisions, the opportunity to lift prices was regarded as a long-awaited chance to place themselves on a more profitable footing.

The wage decision also acted to stimulate a further splurge of demand for print cloths as well as for coarse yarn goods and various specialties.

The handing down of a 32½-cent wage order—a level 2½ cents higher than that required by law as of October 24th—opens the door to a number of possible complications over the question of price adjustments on contracts sold in the past with the standard protective clauses.

Careful observers said they doubted, however, whether the trade would run into serious difficulties, but thought it all depended upon whether mills were contented with a readjustment based on the differential between 30 and 32½ cents, or between the 32½ cents and the previously prevailing minimum of 25 cents. Commission merchants, although in many cases uncertain as to the ultimate outcome, thought that the trade would decide upon the 2½-cent differential.

Meanwhile, the great majority of mills were evidently preparing to quote all prices henceforth on the basis of the 32½-cent minimum. In many cases this was declared to necessitate further upward adjustments; in other cases, no changes at all. Several of the leading sellers continued to employ the protective wage clause, pointing out that they did so in the event that the Government were to effect further wage adjustments hereafter.

In temporarily ceasing to sell, various commission houses declared they acted out of self-protection as well as with the purpose of giving customers time to cool off. The mills, flooded with orders, also required an interim to check-up on their production and delivery positions. Quite a few manufacturers, especially those in the heavy goods divisions, declared the week's cotton advances had more than kept pace with the appreciation of cloth prices. Cotton declined sharply Saturday's short session.

Cotton Yarn Markets

Philadelphia.—Cotton yarn sales have been larger in the period following the news regarding the war situation in Europe than they were for the entire month of August, with no sign of a slackening of demand at this time.

Deliveries also have become more active, and the continual call for spot shipments has drawn stocks down almost to the vanishing point, both here and in the South.

Combed yarn mills had on hand relatively little tenderable stock yarn to begin with, but some carded yarn sources were fairly well stocked late in August, with certain counts and put-ups they expected would come into active demand late this month and during October. Most of this yarn has been sold and shipped.

Therefore, market interests explain, with stocks gone, or nearly so, among the spinners, and with consumers still bidding against one another for early deliveries, there is unusual incentive for spinners to give their asking prices another general boost. Meanwhile, higher prices are reported hourly on individual transactions and in some cases buyers have not only paid top quotations without much hesitation, but have tried to substantially increase the amount of yarn they originally planned to purchase.

On the other hand, a good many of the smaller, marginal manufacturers are afraid of becoming over-extended and their fears are matched by a number of marginal yarn mills. These groups lack capital and credit to swing larger transactions at sharply higher rates. The interests that occupy sound fiscal positions are the ones that are operating farthest ahead.

It is evident that in some quarters it is suspected there has been considerable speculative buying of yarns. However, the yarn trade is said to feel that while there may be isolated cases of speculation on a limited scale, there is no basis thus far for fears that speculation will become a menace to the sale yarn business.

It is stated authoritatively that most sellers here are insisting that every contract have a definite terminal date as to delivery. The rule has been in most cases to restrict orders to such yarn as can be completed delivered within 60 days from date of the purchase. It is explained that regardless of whatever the incentives may be for forward operations beyond this term, in a great many cases the credit position of the buyers warrants not more than 60-day purchases.

The Processing of Spun Rayon and Spun Rayon Mixtures

(*Continued from Page 18*)

unable to withstand the tension of the mercerizing frame. If the goods must be mercerized it is best to use caustic potash rather than soda and to wash out the alkali as quickly as possible with hot water.

Spun rayon fabrics containing no animal fibers are sometimes padded in the grey state with dilute cold caustic soda and allowed to lie for a few minutes without tension. This treatment swells the fibers and shrinks the threads, and often changes the entire character of the finished result. It is said to assist in loosening any impurities and aid in the subsequent scouring, and has been recommended for the production of imitation linen and wooly finishes. There is the disadvantage that fabrics treated with caustic are not penetrated as readily during the subsequent dyeing operation, probably because of the increased affinity for dyes which the caustic treatment gives to the rayon.

Boil Off

The boil-off, so-called, is for the purpose of removing all warp size, sighteners and other impurities and making the fabric as absorbent as possible for the dyeing or printing operations. Olive oil soap is largely used, sometimes with the addition of alkalies, such as soda ash or trisodium phosphate; ammonia is substituted when wool, silk or acetate is present. The temperature varies from 140°, when the fabric contains wool, to nearly the boiling point in the case of all-rayon. Strong alkalies should be avoided in the boil-off bath, and it is well to keep the degree of alkalinity nearly constant to ensure uniform dyeing later on. The soap, etc., should be completely washed out afterward. It is advisable not to let the cloth lie around wet for too long a time, as it may develop so-called "crush marks." Lightweight fabrics are usually impregnated with the boil-off liquor while in the open width, and are then converted into the rope form and scoured hot in the continuous machine. In some cases it is more convenient to do the scouring in the beck, just before dyeing.

Fabrics which must be kept at full width are scoured, somewhat superficially, in a continuous open soaper. Before dyeing on the jig, they may have to be framed if the selvages do not line up properly. Some of the heavier fabrics may be boiled off on the jig itself if the size they contain can be easily removed.

Fabrics which require bleaching (particularly those which contain linen) are next given a treatment in the jig or beck with sodium hypochlorite. If the goods contain also wool or silk, hydrogen peroxide made slightly alkaline with silicate of soda and heated to about 150° is substituted.

Dyeing

The dyeing of spun rayon fabrics is a whole chapter in itself. It should be mentioned, parenthetically, that staple fiber dyes more uniformly than filament rayon, and many of the dyes which are taboo on taffetas, for example, because of their tendency to show warp streaks and filling bars, may be employed on spun rayon without difficulty. However, it is always desirable, so far as possible, to use dyes in combination which have nearly the same rate of exhaustion.

As already mentioned, the coloring is done either at full width in the jig or in rope form in the beck, according to the construction of the cloth. Rope dyeing is usually preferred (other things being equal), as there is less shading from end to end of the piece, and from side to side, and also better penetration. Furthermore, dyeing in the rope gives a fuller and "woolier" hand, while jig dyeing tends to stretch the cloth and give it a thinner feel, and may, in some cases, produce a moire effect. In case there is any doubt as to whether a particular fabric is better adapted for the jig or beck, it may be desirable to try first one method and then the other. If a certain construction which must be handled in open width is hard to penetrate when dyed in the jig, it is better first to pad the color on the dry cloth at 160°, with the addition of a little sulfonated castor oil or its equivalent, roll it up on a batching roll, transfer the roll to a jig and finish the dyeing there in a salt bath.

With regard to the dyeing apparatus itself, all surfaces with which the cloth is in contact must be smooth. Becks are best constructed of monel metal or stainless steel and should be so designed as to minimize tension and friction. Jigs should also be as tensionless as possible, in order to prevent undue stretching of the fabric.

Types of Dyes Used

For light shades, direct dyes are usually employed on all types of fabrics. Dark shades may require developed colors, or those which are aftertreated with formaldehyde. Other classes of dyes, such as vats and naphthols, are rarely used, and only where the fastness requirements make them necessary. When dyeing in the beck (this applies to hopsacks, shantungs, shirtings, gabardines, light and medium dress goods and light suitings), the cloth is first run for a few minutes at 120° with a little sulfonated oil or alcohol, the dye solution is added, and the temperature gradually raised to 180°, after which the salt or Glauber's salt is fed on, not too rapidly. Some dyers favor a rather low temperature for the dye bath, in order to secure even dyeing, and this may perhaps be necessary for very light shades, but for full navies, wines, etc., the writer prefers the maximum heat which can be obtained, as this will give the best color value.

Dyeing of Combination Fibers

When more than one fiber is present in the fabric, the dyeing is naturally more complicated. Combinations of spun rayon and wool, if they are intended for solid colors, are ordinarily dyed with direct dyes, supplesented by neutral dyeing wool dyes. In this case, the two fibers take the dyes simultaneously, at about 190° F. Developed colors can usually be applied in a similar manner.

If the wool is to be left white, selected dyes must be used on the rayon, and the bath must be made alkaline with ammonia, so as not to tint the wool; and the temperature is kept at 140° or less. An addition of Katanol or similar product may be beneficial if the dye persists in staining the wool. If, on the other hand, the fabric is to be cross-dyed in two contrasting colors, it is best to dye the wool first at the boil with selected acid dyes which exhaust well in a formic acid bath and do not tint the rayon excessively. Black and other dark shades on the wool will probably be dyed with top-chromed colors on

account of their superior fastness. The rayon is then dyed with direct dyes in a fresh bath at a lower temperature, with a little ammonia added to neutralize any residual acid.

Combinations of spun rayon and acetate are treated in much the same manner. Solid shades are dyed in a bath containing both direct and acetate dyes, with a suitable dispersing agent for the latter and salt or Glauber's salt for the former. The temperature is usually 120° at the start and is raised to 175°. Here also selected dyes must be used which dye only the rayon or the acetate, leaving the other fiber white or nearly so. The reason for this is that any stain produced by the acetate dye on the rayon, or vice versa, is usually very fugitive and is likely to fade badly at some later time. If one of the fibers is to be left white, even more care must be used in selecting the dyes.

If the two fibers are to be colored in different shades, it is best to dye the darker shade first (if it is not feasible to dye both simultaneously). Thus, the rayon may be dyed first with developed colors, and the acetate tinted later. It is not possible to lay down set rules for this kind of work, as so much depends on the shades required and the available dyes for each shade.

Combinations of spun rayon and silk are treated in much the same manner as rayon and wool, except that it is not feasible to keep the rayon dyes from staining the silk by simply lowering the temperature. Here again success is only obtained by a careful selection of dyes.

Three Color Effects

Occasionally three-color effects are called for, as, for example, a gold on acetate, a red on wool and a light blue on rayon. This kind of work is quite difficult and not to be encouraged, but it is possible to produce a few good combinations if one has the patience to hunt for the particular dyes which have the necessary affinities. Here is a good opportunity for ingenuity on the part of the dye chemist, but the dyer must expect a few headaches. What makes the work especially difficult is the fact that most acetate dyes also stain wool, and most acid wool dyes also stain acetate. Probably the best way to dye full shades on acetate without staining the wool or the rayon excessively is by using the acetate developed dyes, and particularly the organic bases, like alphanaphthylamine, and then diazotizing and developing with Beta Oxy Naphthoic Acid or Resorcin. In this way the wool is little stained, except by the nitrous acid, which tends to yellow it somewhat, and it can then be dyed in a formic acid bath with selected acid dyes (there are a few) which do not stain acetate too much. The rayon can be dyed later with selected direct dyes.

Spun Rayon Printing

The printing of spun rayon is not confined to any particular fabric, though it is perhaps more frequently done on challies. Vat colors, Rapidogens and Indigosols are the rule, the old-fashioned undispersed vats being generally preferred because they appear to give better color value than the dispersed type. For thickenings, too much starch is to be avoided, as it levels poorly and does not wash out easily. On the other hand, too much British gum will give poor color value. A mixture of starch, British gum and tragacanth or other natural gum is usually satisfactory. On the whole, spun rayon printing differs little from filament rayon printing.

Drying Procedure

The drying of spun rayon fabrics must be done carefully and with due regard to the construction of the cloth. To remove the surplus water, all fabrics which are dyed in open width, and even some which are dyed in the rope, must be vacuum extracted if creases are to be avoided. The lightest constructions may be handled in a rotary extractor. As to the actual drying, light weight fabrics are best run through the net or loop drier, followed by short framing. Suitings and other heavy goods are usually dried on the long frame, but sometimes on cans. The latter method is not so satisfactory, as it may tend to stretch the cloth warpwise and impart an unpleasant sheen and undesirable hand to the cloth. All fabrics should be dried as quickly as possible after dyeing, to avoid cloudiness and "crows' feet" (in the case of rope dyeing) or moire effects (in the case of jig dyeing). Direct dyes are particularly susceptible to these troubles.

Spun rayon fabrics, as a rule, require little in the way of finishing materials. A small amount of softener, such as sulfonated olive oil or one of the sulfated fatty alcohols, is usually sufficient, although occasionally a little gum is added to impart firmness. These materials are usually applied in the quetsch, followed by drying in the net or loop drier, and short framing. Waterproofing compounds, usually of the aluminum stearate type, are similarly applied.

If a very smooth, tailored effect is desired, such as is produced by a Hoffman press, it is customary to decatize the goods after dyeing. This may be accomplished by wrapping them around a perforated pipe between layers of cotton or wool blanket and passing steam through the pipe for two or three minutes; then applying a vacuum to remove all water of condensation.

A passage through the so-called silk calender will increase the softness of most spun rayon fabrics, but this operation should be avoided on nub cloth and fancy weaves, or any fabrics where maximum dullness is desired.

Sometimes special finishes are required, such as the so-called "anti-crease" process, with which almost everyone is familiar. For this purpose, synthetic resins, particularly those made from urea and formaldehyde, are usually employed. They are applied in water solution, preferably on the quetsch, after which the goods are net dried and "cured" at a somewhat elevated temperature, to render the resin insoluble. The temperature of the "curing" varies from 260° to 340° F., according to the particular resin used, the type of catalyst which is added, and the length of time during which the heat is maintained. Various machines are used for "curing," such as electrically heated cans, tenter frames and crepe driers. A moist heat is preferable to a dry heat, as the latter may injure the fiber. After "curing," the fabric must be thoroughly washed to remove excess resin and any traces of acid; otherwise, there is danger that while the goods are in storage, unpleasant odors may develop, which will not promote consumer satisfaction.

Synthetic resins are also used for other finishes besides "anti-crease," for example, to give a firmer and fuller "hand" to lessen the tendency of the garment to shrink and stretch, and to enable it to keep its shape better

when worn. Also, the tensile strength of spun rayon when wet is increased by this resin treatment.

Since fabrics which have been treated with resins may not be further dyed, it is necessary to employ in the original dye bath only such colors as will not change shade or lose depth. This necessitates a careful selection of dyes, particularly direct dyes, as some of these are much altered by this treatment. By way of compensation, the fastness to washing of dyed fabrics when "anti-creased" is usually somewhat improved.

It may not be generally known that the urea-formaldehyde resins occasionally have a marked effect on the light fastness of dyes. For example, many direct dyes, particularly blues and greens, become much more sensitive to light after the "anti-crease" treatment. On the other hand, some dyes are even improved a little in light fastness by this process. So far as the writer is aware, no fundamental study has yet been made of these phenomena, and it is still necessary for the mill chemist to test every dye individually and satisfy himself as to the light fastness before recommending it to the dyer for fabrics to be "anti-creased." It is suggested that the dye firms could render a considerable service to the finishing industry by publishing some comprehensive data along this line.

Riverside & Dan River Mills Nets $58,496 for Six Months

Danville, Va.—Operations of the Riverside and Dan River Cotton Mills during the first six months of the current year showed a net profit of $58,496 against a net loss of $750,712 during the first six months of 1938, it is disclosed in financial statements which have been received by shareholders.

The corporatoin's income was listed at $9,433,769, net, compared with $6,379,091 for the same period of last year.

The past few weeks, it is reported, has shown an even greater improvement which is not fully reflected in the semi-annual statement, and while officials hold that conditions are not satisfactory by any means, there is a new note of optimism created by strengthening of the market.

A comparison of income accounts between 1939 and 1938 is as follows:

	First Six Months of 1938	1939
INCOME:		
From sales, rents, etc.	$6,489,060	$9,590,607
Less discounts and allowances	109,968	156,838
Net income	$6,379,091	$9,433,769
COST OF GOODS SOLD:		
Raw materials, labor, expense and supplies, etc.	$6,629,804	$8,862,273
Depreciation	500,000	500,000
Total cost of goods sold	$7,129,804	$9,362,273
Profits for six months	*$ 750,712	$ 71,496
Reserve for income taxes		13,000
Net profit	*$ 750,712	$ 58,496

*Loss.

Hercules Declares Dividend

Wilmington, Del.—The board of directors of Hercules Powder Company have declared a dividend of 40 cents a share on the common stock of the company.

This is payable September 25th to stockholders of record at the close of business on September 14th.

How to Prevent Uneven Yarn

(*Continued from Page 22*)

top covered rolls, skewers, skewer steps, roving traverse, roving trumpets, thread guides, rings, travelers, spindles, bands or tapes, and cylinders. Lubrication is very important, especially of the spindles. Spindle speed must be as nearly uniform as possible. In other words the entire frame must be in good mechanical condition, parts properly set and have correct lubrication.

There are three important essentials to the prevention of uneven yarn that should not be underestimated; namely, speeds, humidity, and the human element. These items are, of course, controversial. The things that might apply to conditions at one mill would probably not be so good at another. We will not attempt a discussion of these three things, except to say that, in our opinion, speeds should not be excessive, humidity should be adequate and uniform, and the help should be well trained.

To sum up in a brief statement our ideas of preventing uneven yarn, we would say, "To prevent uneven yarn it is necessary to have the proper grades of cotton for the purpose intended, properly blended and opened, processed on machines that are in good mechanical condition, correctly set and lubricated and running at reasonable speeds, tended by careful, well-trained operatives, and with correct humidity for local conditions."

P. H.

NUMBER TWENTY-SEVEN

Here are briefly some of the things I have learned will cause uneven yarn:

1. First check over pickers and see that no laps are being run weighing light and heavy, because this will cause uneven sliver on cards, uneven drawing on drawing frames, uneven roving on slubbers and speeders, also in spinning room.

2. Check cards and see that card hands are not allowed to get up ends and run double ends in drawing can, and where ends are lapped do not double but lap even.

3. On some drawing frames the knock off will get out of fix and will not knock off when an end comes down, and will lap into another end. This should be taken out of can and spliced and this drawing frame should be reported to section man. Keep all rollers on drawing frame clean and properly oiled and all bad rollers removed. Also see that your rollers are set properly for the staple of cotton you are running.

4. Slubbers, have all your gears checked and see there are no bad teeth to cause rollers to jump. Keep all rollers clean and all chokes out, and have all rollers with the same weight on them. Don't allow slubber tenders to twist ends too much when they get them up, because this will cause hard end and uneven roving on speeders and spinning.

5. When sizing roving, never use the same stand twice; but skip about on the frame. By doing this you will get a good average and catch any defect in top roller. Also use the same method on speeders and slubbers regarding setting of rollers to the staple of the cotton you are running. Also never allow speeder hands to lap ends too long when creeling, for if you are on long draft, one inch of double roving will mean lots of uneven roving to be spun into yarn. Watch all bobbin gears and see they are working properly. Check up on frame hands and see that they wrap the roving around the finger on the fibers the same number of times, for this will cause large and small bobbins of roving. When the frame gets full, the large bobbins where the roving is wrapped the smallest number of times will make uneven yarn when spun. Never allow frame hands to fan off frames while running for this will cause lint and cotton to fly into your roving and be spun into yarn. Don't send too light or too heavy roving to spinning room, for no spinner can help but make uneven yarn in this case. Watch your weights in card room and if you have some of either light or heavy

roving rework it yourself. Do all cleaning on speeders while doffing as far as possible, and have all boxes clean before you lay your doffing in it. Never throw your roving in box or bin.

6. Spinning departments, check all gears and see that no teeth are skipping. Watch out for laps on steel roll. Sometimes roving will lap around steel roller, and spinner will just break it off and start it running again with lap still on. This will feed more roving in and make heavy yarn. See that all leather rolls have a good cushion and are the same size. If you are using cork rolls, have them buffed to the same size. Never use large and small rolls in front, for this will cause uneven yarn. Regulate roving traverse so it will not run out, and get as long a stroke as you can. Keep all rollers picked clean and chokes out, and see that all rollers are oiled properly and keep flutes in steel rollers clean. Be sure you use travelers heavy enough to take care of bottom and not let yarn lash against separators. Don't run travelers too long and burn them up, causing the travelers to choke up and pull heavy. This will cause a strain on your yarn and cause it to weigh light. Have your top slats cleaned regularly, for this will feed through and spin into your yarn, causing yarn to weigh heavy. Here is where you really have to watch about creeling, for if a spinner laps her ends when she sets in her roving with one inch lap and you are drafting eighteen inches, you will, therefore, have eighteen inches of heavy yarn and no chance to stop it unless your guides on spoolers are set very close. Don't try to run new and old rings on the same frame, for this will cause uneven numbers. Watch out for bad bolsters that shake, and have them removed at once. This will cause yarn to lash against separators and cause uneven yarn. Be sure to keep traveler rings clean, also separators are fanned each doff, for this lint and cotton that accumulate fly into your yarn.

A. C. M.

NUMBER TWENTY-EIGHT

First, make sure that the cotton is of the right character and quality for the class of yarn to be spun. Open as many bales as the room will permit at one time. Let the tender of the opening room take a small portion of cotton from each bale, feed it into the first opening machine or machines. Never run compressed and uncompressed cotton together in the same opening. If you have to run both kinds run them separate, the compressed in one opening and uncompressed in the other. Beater speeds should be given careful consideration. They should run fast enough to properly prepare the stock, yet not fast enough to injure the fibers. Picker room should have either controlled humidity or be provided with some kind of an instrument that will keep the tender posted at all times as to the amount of moisture content in order that he can make his adjustments accordingly. Make sure that the lap weight, yard by yard, is the same on each finished picker. See that each lap is of a standard length. Laps should be heavy enough to make sure that the picker screens are covered from end to end to assure a uniform sheet of stock. All laps that do not weigh within the toleration limit should be returned to the opening room and reworked. See that evener motions

are checked periodically for cleanliness and adjustments. All waste that is to be reworked should be reworked properly and distributed with the utmost of care.

Carding: Cards should be set properly and kept sharp. Production should not be overdone. Card tenders should be very careful when handling laps and especially in the splicing. Considerable damage can be done here that cannot be overcome in the other processes. Stripping cards, whether by vacuum or brush, should have careful attention. A good plan is to strip every other card one round and get the others on the next round in order not to have such a variation of sliver weight which results from stripping. In order to simplify this system it may be a good plan to mark every other coiler head with some light color of paint.

Drawing: Drawing rolls should be set to the space for the length and bulk of the cotton. Each frame should be gone over at intervals and thoroughly cleaned and greased, and before starting the roll settings should be checked. In doing this they will stay in pretty good shape. Front roll r. p. m. should be just as low as possible to get the stock through, and in many cases it would be well to reduce front rolls to a reasonable speed if you should have to add a few more deliverers. Make sure that the sliver between front rolls and calender rolls are kept at the right tension at all times.

Cans should not be allowed to run too full, stop motions should be adjusted so the frame will stop when the cans are full enough, thus preventing stretched sliver at this point.

Roving Frames: Roving frames should be kept clean at all times, especially top and bottom rolls. Rolls should be properly spaced in order to get uniform drafting. Top rolls should be inspected at least once a week, and all that show signs of grooving or any other fault should be replaced immediately. Top and bottom rolls should be kept well lubricated with some good grade of lubricant. Tension on the roving should have the utmost of care. Make sure that the proper tension gear is used to run the roving just as slack as it will bear, not to cause excessive ends down. Draft on roving frames should not be overdone, to do so will result in uneven roving, which will make uneven yarn when spun.

Spinning: If the roving is of the right quality when it reaches the spinning room, your battle is just about won. Spinners and doffers should have a cleaning system that will keep unwelcomed lint or fly out of the roving and yarn. Top and bottom rolls should be kept as clean as possible and well lubricated. Make sure that the top roll stays in good working condition by replacing them with new ones even before they start making bad work. Roving traverses should be watched closely and adjusted so the traverse will cover three-fourths of the surface of the leather. Bottom rolls should be properly spaced to take care of the staple of cotton. Bottom rolls should be taken out and thoroughly cleaned at intervals, and all loose necks tightened up and all worn necks replaced with new ones. Spinning rooms should have a good controlled humidifying system.

W. H. T.

Name Mills Joining Cotton Bale Drive

Charlotte, N. C.—Cotton textile mills of the nation are joining in an effort to promote the use of cotton material to cover bales of cotton by agreeing to pay for an additional 7½ pounds for every bale wrapped in cotton, said W. M. McLaurine, secretary and treasurer of the American Cotton Manufacturers' Association, recently:

Mr. McLaurine said that the major disadvantage cotton has suffered in this field for increasing its usage is the system of gross weight trading when the six yards of 12-ounce cotton material required for covering a bale weighs 4½ pounds and the six yards of 2-pound jute bagging weighs 12 pounds. However, with the large number of mills agreeing to pay for 7½ pounds more of cotton when the bales are drapped in cotton, this problem is on its way toward solution, he explained.

Southern mills which will support cotton and cotton farmers by paying this extra money were announced by Mr. McLaurine as follows:

Alabama—Alabama Mills, Inc., Birmingham; Avondale Mills, Sylacauga; Bama Cotton Mills, Enterprise; Boaz Mills & Gin Co., Boaz; Cowikee Mills, Eufaula; Geneva Cotton Mills, Geneva; Micolas & Opp Cotton Mills, Opp; Profile Cotton Mills, Jacksonville, and Samoset Cotton Mills, Talladega.

Georgia—Anchor Duck Mills, Rome; Bibb Mfg. Co., Macon; Callaway Mills, LaGrange; Covington Mills, Covington; Crown Cotton Mills, Dalton; Dixie Cotton Mills, LaGrange; Fitzgerald Cotton Mills, Fitzgerald; Fulton Bag & Cotton Mills, Atlanta; Georgia-Kincaid Mills, Griffin; Hawkinsville Cotton Mills, Hawkinsville; A. D. Juilliard & Co., Aragon; J. P. King Mfg. Co., Augusta; Macon Textiles, Macon; Mandeville Mills, Carrollton; Mary Leila Cotton Mills, Greensboro; Martha Mills, Thomaston; Moultrie Cotton Mills, Moultrie; Palmetto Cotton Mills, Palmetto; Pepperton Cotton Mills, Jackson; Rushton Cotton Mills, Griffin; Sibley-Enterprise Mfg. Co., Augusta; Tifton Cotton Mills, Tifton; Trio Mfg. Co., Forsyth; Union Mfg. Co., Union Point; West Point Mfg. Co., West Point; United States Rubber Products, Inc., Hogansville; Pepperell Mfg. Co., Lindale; Eagle and Phenix Mills, and Columbus Mfg. Co., Columbus; Strickland Cotton Mills, Valdosta; Swift Spinning Mills, and Bradley Mfg. Co., Columbus; Chicopee Mfg. Co., Gainesville; Oconee Textile Co., Whitehall; Tallapoosa Mills, Tallapoosa.

Louisiana—Lane Cotton Mills Co., New Orleans.

North Carolina—Balfour Mills, Balfour; Beacon Mfg. Co., Swannanoa; Cannon Mills Co., Kannapolis; Carlton Yarn Mills, Inc., Cherryville; Carolina Mills, Inc., Maiden; Carolina Textile Corp., Charlotte; Cleveland Mill & Power Co., Lawndale; Climax Spinning Co., Belmont; Cramerton Mills, Cramerton; Crescent Spinning Co., Belmont; Cross Cotton Mills, Marion; Dixon Mills, Inc., Gastonia; Durham Cotton Mfg. Co., Durham; Eagle Yarn Mills, Inc., Belmont; Edna Mills Corp., Reidsville; Efird Mfg. Co., Albemarle; Erwin Cotton Mills, Durham; Excell Mfg. Co., Lincolnton; Marshall Field & Co., Spray; Firestone Mills, Gastonia; Gambrill & Melville Mills, Bessemer City; Gastonia Combed Yarn Corp., Gastonia; Globe Mills Co., Mt. Holly; Green River

Mills, Tuxedo; Hannah Pickett Mills, Rockingham; Hanover Mills, Gastonia; Hill Spinning Co., Roseboro; Highland Cotton Mills, High Point; Liledoun Mills, Taylorsville; Lily Mills Co., Shelby; Locke Cotton Mills Co., Concord; Lola Mills, Inc., Stanley; Marion Mfg. Co., Marion; New City Mills Co., Newton; Oakdale Cotton Mills, Jamestown; Oxford Cotton Mills, Oxford; Patterson Mills Co., Roanoke Rapids; Peck Mfg. Co., Warrenton; Peerless Spinning Corp., Lowell; Pickett Cotton Mills, High Point; Pilot Mills, Raleigh; Proximity Cotton Mills, Greensboro; Randolph Mills, Inc., Franklinville; Ranlo Mfg. Go., Gastonia; Revolution Mills, Greensboro; Rhodhiss Mills Co., Rhodhiss; Rhyne-Houser Mfg. Co., Cherryville; Roanoke Mills Co., and Rosemary Mfg. Co., Roanoke Rapids; Rowan Cotton Mills Co., Salisbury; Royal Cotton Mills, Wake Forest; Salisbury Cotton Mills, Salisbury; Shuford Mills, Hickory; Superior Yarn Mills, Inc., Statesville; Textiles, Inc., Gastonia; Travora Mfg. Co., Graham; Trenton Cotton Mills, Gastonia; Virginia Mills, Inc., Swepsonville; Waverly Mills, Inc., Laurinburg; Wennonah Cotton Mills, Lexington; Rocky Mount Cotton Mills, Rocky Mount; Hart Cotton Mills, Tarboro.

South Carolina—Arcade Cotton Mills, Rock Hill; Chiquola Mfg. Co., Honea Path; Drayton Mills, Spartantanburg; Gossett Mills, Anderson; Inman Mills, Inman; Norris Cotton Mills, Cateechee; F. W. Poe Mfg. Co., Greenville; Republic Cotton Mills, Great Falls; Riverdale Mills, Enoree; Saxon Mills, Spartanburg; Union-Buffalo Mills, Union; Victor-Monaghan Co., Greenville; Virginia Mfg. Co., Fountain Inn; Ware Shoals Mfg. Co., Ware Shoals; Springs Cotton Mills, Lancaster; Kendall Mills, Edgefield; Pickens Mills, Pickens; Glenwood Cotton Mills, Easley.

Tennessee—Borden Mills, Inc., Kingsport; Brookside Mills, Knoxville; Dixie Mercerizing Co., Chattanooga; O'Cedar Corp., Covington; Standard Knitting Mills, Knoxville.

Texas—Brazos Valley Cotton Mills, West; Dallas Cotton Mills, Dallas; Lone Star Cotton Mills; El Paso; Mexia Textile Mills, Mexia; Postex Cotton Mills, Post; Sherman Mfg. Co., Sherman; Worth Mills, Fort Worth.

Virginia—Riverside & Dan River Cotton Mills, Danville.

Mr. McLaurine said that although to the best of his knowledge this list is complete, it is possible that it does not contain a few mills who have agreed to pay this extra amount for bales wrapped in cotton.

Bahan Company Adding to Plant

Greenville, S. C. — Construction of an addition to the Bahan Textile Machinery Company has begun.

Officials of the company said the addition would consist of a one-story brick and steel building measuring about 75 by 105 feet and costing in the neighborhood of $10,000. Construction will probably be completed in about a month.

Officials said the additional space would be used for manufacturing and would provide for rearrangement of some other sections of the plant.

Textile Accident Rate Drops

The accident rate in the textile industry for 1938 was 24 per cent lower in frequency and 5 per cent lower in severity than in 1937, according to the National Safety Council, Inc., of Chicago.

Although this indicates an improvement in accident rates in the industry, its effect is somewhat mitigated by the fact that looking at the situation from the long perspective, it is found that while since 1926 the frequency rate has dropped 65 per cent, the severity rate has risen 18 per cent.

These results compare with reductions of 68 per cent in frequency and 44 per cent in severity in all industries, the council states. Based on reports from 156 mills in which employees worked 193,122,000 man hours during the year, the frequency rate is 45 per cent below the average for all industries, and the severity rate is 61 per cent lower than the general average. Textile mills ranked fourth in both frequency and severity among 30 major industries.

The rise in severity rates during the last 13 years is due to an increase of 500 per cent in fatalities. Other types of injuries, however, have dropped 55 per cent, it was said.

The highest frequency rates during 1938, the report went on, were attributed to the carpet and rug finishing and miscellaneous textile mills, with percentages between 8.64 and 13.12, while the severity dishonors went to the knitting mills, cord and cordage manufacturers and finishing mills, varying from 0.98 to 2.12. Knitting mills had the lowest frequency rates, averaging 3.83, and the rayon yarn producing mills had the lowest severity rates with an average of 0.21.

Machines, principally carding, looms, twisting, and weaving, were outstanding agencies of injury, figuring in 63 per cent of all serious injury. Working surfaces, such as ladders, floors and platforms, were next in the report's listing.

Employees injured when hands and fingers were caught in or between moving parts of machines resulted in 59 per cent of all injuries. Falling, flying and sliding objects were second in importance in the report.

Survey indicated, the Safety Council continued, that working on machines in motion and using hands and fingers instead of proper tools in cleaning and making repairs were the major personal causes of all accidents, and that entering unsafe areas, undue haste and failure to wear safety apparel and devices provided by the management also figured largely.

Mechanical causes of serious accidents were led by unsafe processes, working methods, planning and poor housekeeping. Lack of proper guarding, defective material and equipment were important factors, the council recorded.

Personal causes accounted for 80 per cent of all accidents because of improper attitudes, particularly disobedience of instructions, recklessness, haste and abstraction.

An honor roll was cited in the yearly account, including many well known mills which have attained outstanding records in safety and accident prevention. Heading this list with 6,792,695 injury-free man-hours accumulated from June 6, 1925, to April 3, 1926, was the Clark Thread Company, Newark. Other mills to hold records were the Hanes Hosiery Mills Company, Winston-Salem; Wile & Co., Buffalo; the U. S. Finishing Company, Norwich, Conn; Marshall Field & Co. (Hosiery Mill at Fieldale, Va.); E. I. du Pont de Nemours & Co.; Bemis Bros. Bag Company; Berkshire Fine Spinning Associates, Inc.;Tallahase Mills, Marshall Field & Co. (Wearwell Sheeting Mill); The Kendall Company; Millville Manufacturing Company; Ludlow Manufacturing & Soles Company.

Also listed were the Abbot Worsted Company, Marshall Field & Co. (Karastan Rug Mill), Darlington Fabrics Company and the Rhode Island Textile Company, all of whom had made outstanding successes of their safety programs during the year.

Visiting the Mills

Intimate Glimpses of Activities in Southern Textile Plants and the Men Who Own and Operate Them.

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

SLATER, S. C.

Samuel Slater & Sons, Inc.

Samuel Slater built and started the first mill in America at Pawtucket, R. I., in 1790, nearly 150 years ago, starting what turned out to be one of our leading industries.

The mill machinery was even built by Samuel Slater for his mill, which consisted of three cards and two spinning frames, and strange to say, "curtailment" was necessary after around two years' operation had glutted the market! There were nine operatives.

This first venture was in an old clothing shop. In 1793 Mr. Slater and his partners, Obiah Brown and William Almy, erected a mill building to which they moved the three cards and two spinning frames—a total of 72 spindles.

Slater's second mill was built right across Blackstone River on the Massachusetts side, and so he had the honor of starting the first mills in both Rhode Island and Massachusetts.

Slater was superintendent of both mills for long hours, six days a week and his wages were $3.00 per week!

Other mills were built by him, and the pretty mill at Slater is a "great-great-grandchild." Conspicuously displayed in office portico is a stone from the first mill, and above it a handsome bronze tablet in memory of Samuel Slater, pioneer of American textiles.

This is one of the cleanest mills in the South, and some of the friendliest people to be found are employed here invarious positions. The girls are so pretty one wonders if they have been "hand picked" through a beauty contest.

There are 1120 looms in this mill, 610 of them new and some of the prettiest dress goods are woven here.

I saw a tying-in machine about the size of a baby carriage which cost $7,000 I was told.

A new Bahnson humidifying system has been installed and new machinery has taken the place of old in the slasher room.

Seven hundred and fifty happy people are employed here, and most of them live in the pretty homes of the neat, clean village.

There are three churches—Baptist, Methodist, and Church of God. Schools second to none, grammar and high, offer educational opportunities that are appreciated by all.

Our good friend, the genial and efficient plant manager, J. I. White, couldn't have given me a finer or more interesting escort and assistant than T. M. Tyner, a graduate from N. C. State College, Class of 1938. He's full of pep and hustle, and one of the several industrious workers in the mill office.

W. V. Gilmore is superintendent of weaving. Overseers are: L. L. Holcomb in No. 1 and Frank Powers, Nos. 2 and 3 on first shift. On second shift, Leo Braswell in No. 1 and Boyce Putman, Nos. 2 and 3. Third shift, Mr. Hux in No. 1, and Mr. Inman in Nos. 2 and 3.

In preparation, Webb H. Layton, superintendent. G. W. Dobbs, warping and slashing first shift, W. L. Whitten, second shift, and C. B. Elliott, third shift.

L. T. Scarce, overseer cloth room; J. L. Starnes, master mechanic; Frank Roberts, designer; R. P. Alexander, production.

Second hands in weaving whom I met are F. J. Aiken, J. L. Barker, D. W. Balliew, J. G. Keller, G. P. Reid and F. M. Shehane, who I used to see years ago in the "Duck Mill," Columbia, S. C.

C. A. Huffman says that in all his 30 years' experience as a loom fixer, he likes his job here best of all. T. W. Davidson is another loom fixer whom I was glad to meet.

LAWNDALE, N. C.

Cleveland Mill and Power Company

Lawndale is a pretty mill town 12 miles from Shelby, First Broad River, and is the lively offspring of the historical Cleveland Mill, built by Major H. F. Schenck in 1873. Major Schenck was the father of John F. Schenck, Sr., who is president and treasurer of Cleveland Mill and Power Company, and president of Lily Mills Company, Shelby. He is one of the best educated and interesting mill officials in the South.

He went to Wake Forest and also to the University of North Carolina, graduating from there in 1886. His ambition was to practice law and he did have his shingle out in Durham for two years and made good.

However, being an only son, his father naturally wanted him in the textile industry, and in 1892 the young lawyer returned to Lawndale and joined forces with his father, three years after the present mill began operations; and for 47 years he has been the leading spirit here.

He has invented and directed the building of a number of mill machines of various kinds, and is still actively interested in every detail of mill work.

One son, Hal E. Schenck, is vice-president and cotton buyer for the Lawndale plant. Two other sons are officials of Lily Mill, Shelby, where the famous Lily Mill sewing, ebroidery, and crochet threads are made. They are J. W. Schenck, secretary and John F. Schenck, Jr., superintendent and treasurer. The two mills work together for mutual good. The Lawndale plant operates a mercerizing plant for the product of Lily Mills Company.

There are also bleaching and dyeing departments where skeins revolve on porcelain rollers and bleach or dye to perfection.

I've never made a more delightful visit, nor seen more interesting work than at Lawndale, where around 75 different styles of yarns, cord and twine, also braided cord, are made. Just now attention is turned to various decorative cords for wrapping Christmas packages.

Key Men

Charles D. Forney, Jr., is the energetic and efficient superintendent; Cliff Wallace is overseer carding; Charles L. Champion, overseer spinning and twisting; A. A. Garver, overseer winding and packing; Charles D. Forney, Sr., bleaching and dyeing.

Beautiful trees of many varieties were set out by pioneer Major Schenck who was a great lover of trees, and they are grand monuments to his memory. The main street through Lawndale to the mill is bordered by giant trees that clasp hands lovingly above it, making a truly picturesque and delightful driveway.

NEWTON, N. C.

Newton has broken out all over with a building epidemic. Handsome new residences have been erected and others are going up.

Mid-State Cloth, Inc., is erecting a large new addition, and the town in general has an air of lively prosperity.

Clyde Fabrics, Inc.

Clyde Fabrics, Inc., with R. C. Rhinehardt manager and assistant treasurer, and D. E. Sherrill, superintendent, is one of the city's livest industries; the product is knitted cloth, glove tubing, Jersey cloth, snow suit cloth, and carded knitting yarns of exceptionally good quality. C. L. Andrews is overseer carding and spinning, No. 1; Ed Poag, overseer weaving; W. F. Blevens, overseer wool; Carl Hendrix, dyer; W. C. Wilkerson, overseer cloth room; A. L. Sanders, knitter; M. M. McGee, cloth room.

J. W. Clark is overseer carding No. 2, and K. M. Deal is overseer spinning.

Second hands we met are Arthur Lackey, Grady Queen and C. L. Drum.

"Aunt Becky" was the honored guest of superintendent and Mrs. D. E. Sherrill for lunch in Newton's leading cafe, and truly enjoyed every minute.

Mill Employe Robbed Of Weekly Earnings

Burlington, N. C. — Elise Starrett, an employe of the Sellers manufacturing company at Saxapahaw, was robbed of her weekly earnings August 10th as she was en route home shortly after 11 o'clock, when the second shift ended.

The girl, who was driving a car, stopped when two men flagged her near her home, officers said. The men stepped up beside the car, one pointed a pistol in her face and demanded her pay check.

Hercules Powder Co. Reports Six Months' Earnings

Wilmington, Del.—Hercules Powder Company reports for the first six months of 1939 net earnings of $2,269,470, after providing for depreciation and Federal taxes. This is equal, after payment of preferred dividends, to $1.52 a share on an average of 1,316,710 shares of common stock outstanding during the period. Figures for the first half of 1938 showed net earnings of $1,227,134, equal, after payment of preferred dividends, to 73 cents a share on an average of 1,316,710 shares outstanding.

Lint Exports Sliding Lower

Washington, D. C.—Government statisticians painted a gloomy picture of the cotton surplus problem recently, disclosing that exports during the marketing season which ended July 31 were the lowest in 60 years, and that the carry-over of cotton on August 1 was the largest ever recorded by the government.

The Commerce department reported that cotton exports from August of last year through July this year aggregated 3,327,000 bales valued at $170,682,000. This was a decline of 40.6 per cent in quantity and 44.3 per cent in value from the previous season.

At the same time the Cenus bureau reported a carry-over of 13,032,611 running bales, compared with 11,533,439 bales a year ago and a 10-year average from 1929-38 of 6,744,800 bales. The present supply does not include an estimated new crop of 11,400,000 bales.

In the face of these figures, associates of Secretary of Agriculture Wallace expressed confidence that the recently inaugurated cotton export subsidy plan would stimulate foreign sales during the season which began August 1.

Under the plan, the government will pay a bounty of a cent and a half a pound, or about $7.50 a bale, on all exports this season.

Wallace has expressed hope that exports would climb to 6,000,000 bales this season through payment of about $45,000,000 in subsidies. Congress provided more than $50,000,000 for this program.

The Commerce department report said a 74 per cent decline in sales of American coton to the United Kingdom was the principal factor in the decline from the previous season.

Exports to Japan and China for 1938-39 were slightly larger than the previous season, but this was not enough to offset the smaller cotton sales to France, Italy, Germany, Belgium, and other important buyers of the American fiber.

Southern Sources of Supply

For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

AKRON BELTING CO., Akron, O. Sou. Branches, 15 Augusta St., Greenville, S. C.; 390 S. Second St., Memphis, Tenn.

AMERICAN BLOWER CORP., Detroit, Mich. Sou. Offices: Court Square Bldg., Baltimore, Md.; 1211 Commercial Bank Bldg., Charlotte, N. C.; Rooms 716-19, 101 Marietta St. Bldg., Atlanta, Ga.; 846 Baronne St., New Orleans, La.; 1005-6 American Bldg., Cincinnati, Ohio; 619 Mercantile Bldg., Dallas, Tex.; 201 Petroleum Bldg., 1314 Texas Ave., Houston, Tex.; 310 Mutual Bldg., Kansas City, Mo., 620 S. 5th St., Architects and Bldrs. Exhibit Bldg., Louisville, Ky.; 1433 Oliver Bldg., Pittsburgh, Pa.; 7 North 6th St., Richmond, Va.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, 822 W. Morehead St., Charlotte, N. C., Hugh Puckett, Southern sales Mgr. Reps., John D. Hunter, C. B. Suttle, Jr., A. W. Foley, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 1202 W. Market St., Greensboro, N. C.; Eugene H. Driver, 272 14th St., N. E., Atlanta, Ga.; Wilton H. Earle, Jr., 409 Westfield Ave., Greenville, S. C.

AMERICAN MOISTENING CO., Providence, R. I. Southern Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN PAPER TUBE CO., Woonsocket, R. I. Sou. Rep., Ernest F. Culbreath, 602 Commercial Bank Bldg., Charlotte, N. C.

ARMSTRONG CORK CO. (Textile Division), Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley.

ARNOLD, HOFFMAN & CO., Inc., Providence, R. I. Frank W. Johnson, Sou. Mgr., Box 1268, Charlotte, N. C. Sou. Reps., Robert E. Buck, Box 904, Greenville, S. C.; Harold T. Buck, 1615 12th St., Columbus, Ga.; W. Chester Cobb, Hotel Russell Erskine, Huntsville, Ala.; D. Floyd Burns, Jr., Box 198, Durham, N. C.

ASHWORTH BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

ATLANTA HARNESS & REED MFG. CO., Atlanta, Ga. Succeeded by Steel Heddle Mfg. Co., Atlanta Division. (See this company's listing.)

AUFFMORDT & CO., C. A., 2 Park Ave., New York City. Sou. Rep., S. L. Diggle, Jr., 522 Hawthorne Lane, Charlotte, N. C.

BANCROFT BELTING CO., Boston, Mass. Sou. Rep., Ernest F. Culbreath, 602 Commercial Bank Bldg., Charlotte, N. C.; Herbert Booth, Claridge Manor Apt., Birmingham, Ala.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BORNE, SCRYMSER CO., 17 Battery Place, New York City. Sou. Mgr., H. L. Siever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, 1546 Stanford Place, Charlotte, N. C.; John Ferguson, P. O. Box 592, LaGrange, Ga.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Rep., J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CHARLOTTE CHEMICAL LABORATORIES, Inc., Charlotte, N. C.

CHARLOTTE LEATHER BELTING CO., Charlotte, N. C.

CIBA CO., Inc., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON CO., Clinton, Iowa. Luther Knowles, Sou. Agt., Box 127, Phone 2-2486, Charlotte, N. C. Sou. Reps., Grady Gilbert, Box 342, Phone 1132, Concord, N. C.; Clinton Sales Co., Inc., Dana H. Alexander, 2 Morgan Bldg., Greenville, S. C.; Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C.; Boyce L. Estes, Box 325, Phone 469, LaGrange, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta, Ga.; Farmers Bonded Warehouse, Roanoke Rapids, N. C.

COMMERCIAL CREDIT CO., Baltimore, Md. Sou. Rep., C. T. Broun, Wilder Bldg., Charlotte, N. C.

CORN PRODUCTS REFINING CO., 17 Battery Place, New York City. Corn Products Sales Co., Greenville, S. C., John R. White, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C., J. Canty Alexander, Asst. Sou. Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga., C. G. Stover, Mgr.; Corn Products Sales Co., 824-25 Security Bank Bldg., Greensboro, N. C., W. R. Joyner, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala., L. H. Kelley, Mgr. Stocks carried at convenient points.

CUTLER, ROGER W., 141 Milk St., Boston, Mass. Sou Office, Woodside Bldg., Greenville, S. C. Southern Tape Agent: Byrd Miller, Woodside Bldg., Greenville, S. C. Roll Agents: Dixie Roller Shop, Rockingham, N. C.; A. J. Whittemore & Sons, Burlington, N. C.; Dixie Roll & Cot Co., Macon, Ga.; Morrow Roller Shop, Albemarle, N. C.; Greenville Roll & Leather Co., Greenville, S. C. Take Up Roll Agent: M. Bradford Hodges, Box 752, Atlanta, Ga.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep., John E. Humphries, P. O. Box 843, Greenville, S. C.; Chas. L. Ashley, P. O. Box 720, Atlanta, Ga.; John H. O'Neill, P. O. Box 720, Atlanta, Ga. H. Reid Lockman, P. O. Box 515, Spartanburg, S. C.

DIEHL MFG. CO., Elizabethport, N. J. Textile Dept., P. N. Thorpe & Co., 267 Fifth Ave., New York City. Sou. Offices: Charlotte, N. C., 617 Johnston Bldg., James H. Lewis; Atlanta, Ga., 172 Trinity Ave., S.W., S. G. Boyd; Dallas, Tex., 2nd Unit Santa Fe Bldg., Olin Duff.

DILLARD PAPER CO., Greensboro, N. C., Greenville, S. C., Charlotte, N. C.

DRAKE CORP., Norfolk, Va.

DRAPER CORPORATION, Hopedale, Mass. Sou. Rep., E. N. Darrin, Vice-Pres.; Sou. Offices and Warehouses, 242 Forsyth St., S. W., Atlanta, Ga., W. M. Mitchell; Spartanburg, S. C., Clare H. Draper, Jr.

DU PONT DE NEMOURS & CO., Inc., E. I., Organic Chemicals Dept., Dyestuffs and Fine Chemicals Div., Wilmington, Del. John L. Dabbs, Sou. Sales Mgr.; D. C. Newman, Asst. Sou. Sales Mgr.; J. D. Sandridge, Asst. Sou. Sales Mgr.; E. P. Davidson, Asst. Mgr. Technical. Sou. Warehouses, 414 S. Church St., Charlotte, N. C. Reps., C. H. Asbury, H. B. Constable, J. P. Franklin, J. F. Gardner, L. E. Green, M. D. Haney, W. R. Ivey, S. A. Pettus, A. W. Picken, N. R. Vieira, Charlotte Office; J. T. McGregor, Jr., James A. Kidd, 1035 Jefferson Standard Bldg., Greensboro, N. C.; John L. Dabbs, Jr., G. H. Boyd, 804 Provident Bldg., Chattanooga, Tenn.; R. D. Sloan, T. R. Johnson, Greenville, S. C.; W. F. Crayton, Adam Fisher, Jr., W. A. Howard, Columbus, Ga.; J. A. Franklin, Augusta, Ga.; Tom Taylor, Newnan, Ga.

DU PONT DE NEMOURS & CO., Inc., E. I., The R. & H. Chemicals Dept. Main Office, Wilmington, Del.; Charlotte Office, 414 S. Church St., LeRoy Kennette, District Sales Mgr. Reps., J. L. Moore, Technical Man, Penn R. Lindsay, Salesman, 414 S. Church St.; John C. Robertson, 1220 Passadena Ave., Atlanta, Ga., Technical Man.; R. C. Cochrane, 356 Pine Tree Drive, Atlanta, Ga., Salesman; W. F. Murphy, 1106 19th Ave., Nashville, Tenn., Ceramic Salesman.

EATON, PAUL B., 213 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou Plant, 118½ W. Fourth St., Charlotte, N. C. George Field, Mgr.; Geo. F. Bahan, District Rep.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C., S. R. and V. G. Brookshire.

FIDELITY MACHINE CO., 3908-18 Frankford Ave., Philadelphia, Pa. Sou. Reps., John E. Fox, First National Bank Bldg., Charlotte, N. C.; R. C. Aycock, 911 Provident Bldg., Chattanooga, Tenn.

FOSTER MACHINE CO., Westfield, Mass. Sou. Office, 1314 Johnston Bldg., Charlotte, N. C.

FRANKLIN MACHINE CO., 44 Cross St., Providence, R. I.

FRANKLIN PROCESS CO., Providence, R. I. Sou. Plants, Southern Franklin Process Co., Greenville, S. C.; Central Franklin Process Co., Chattanooga, Tenn.

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FROM A. B. S. TO Main Office
SUBJECT XXXXX Company

This account has just taken out a dyeing with the use of DECERESOL OT. It was a light pink shade on tightly wound packages. The dyeings were very even. They used 1% and circulated machine 10 minutes cold and added dyestuff and were able to take dyed lot off in 45 minutes instead of usual 1-1/4 hours.

AMERICAN CYANAMID & CHEMICAL CORPORATION

30 ROCKEFELLER PLAZA • NEW YORK, N. Y.

DISTRICT OFFICES:

822 West Morehead St., Charlotte, N. C.; 89 Broad St., Boston, Mass.; 600 S. Delaware Avenue, Corner South Street, Philadelphia, Pa.; 20 North Wacker Drive, Chicago, Ill.